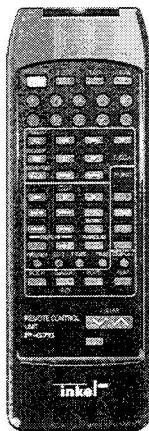
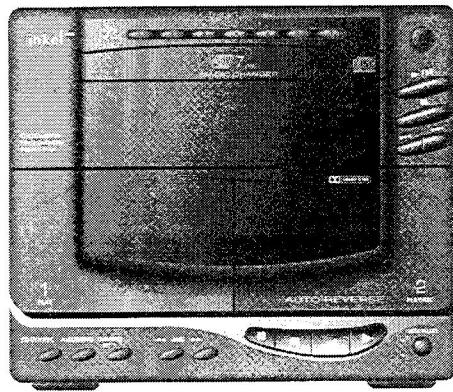
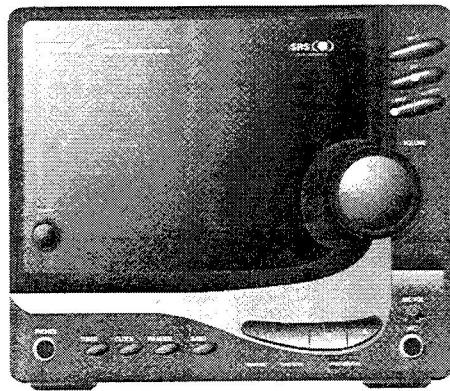


SERVICE MANUAL

P-676



ATX-676

- STEREO INTEGRATED AMPLIFIER
- STEREO AM/FM TUNER & TIMER

CCD-676

- MULTI COMPACT DISC PLAYER
(7 CD Changer)
- STEREO DOUBLE CASSETTE DECK

 **Sherwood®**

CONTENTS

ATX-676

SAFETY PRECAUTIONS	2
SPECIFICATIONS	3
BLOCK DIAGRAM	5
WIRING DIAGRAM	7
CIRCUIT DESCRIPTION	9
ALIGNMENT PROCEDURES	14
TROUBLESHOOTING	18
MECHANICAL PARTS LIST	24
EXPLODED VIEW	25
PRINTED CIRCUIT BOARDS	27
ELECTRICAL PARTS LIST	31
IC'S FUNCTIONAL BLOCK DIAGRAM	38
SCHEMATIC DIAGRAMS	43

CCD-676

LASER BEAM SAFETY PRECUATIONS	52
SPECIFICATIONS	53
BLOCK DIAGRAM	54
WIRING DIAGRAM	55
CIRCUIT DESCRIPTION	56
ALIGNMENT PROCEDURES	60
TROUBLESHOOTING	63
MECHANICAL PARTS LIST	71
EXPLODED VIEW (CABINET & CHASSIS)	72
PRINTED CIRCUIT BOARDS	74
ELECTRICAL PARTS LIST	76
IC'S FUNCTIONAL BLOCK DIAGRAM	79
SCHEMATIC DIAGRAMS	84

SAFETY PRECAUTION

WARNING

Before servicing this unit, familiarize yourself with the following precautions:

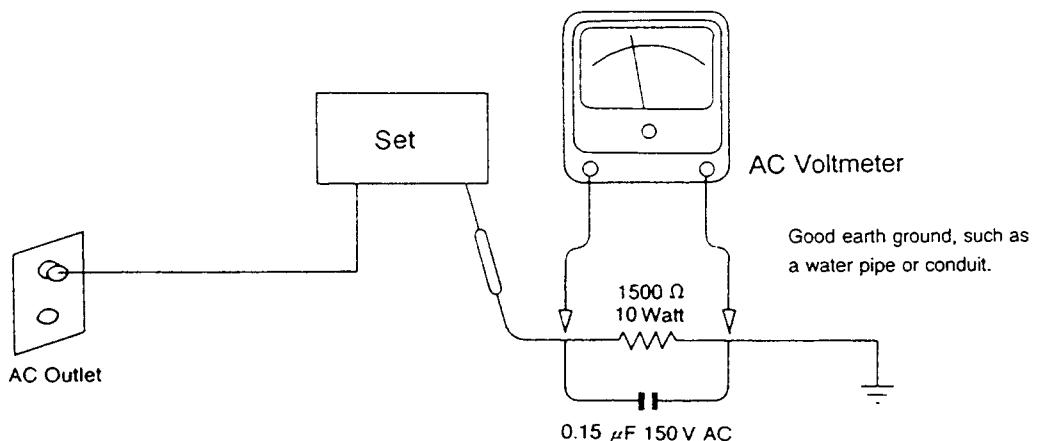
1. Many electrical and mechanical parts in this chassis have special safety characteristics that often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by  in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

2. Before returning the set to the customer, always do an AC leakage current check on the

exposed metal parts of the cabinet, such as terminals, screw heads, and metal overlays, to be sure the set is safe to operate. Danger of electrical shock. Plug the AC line cord directly into a 120 V AC outlet (120 V AC version only). (Do not use a line isolation transformer during this check.) Be sure your AC voltmeter has a sensitivity of 5000 Ω per volt or greater. Then connect a 1500 Ω 10 watt resistor, paralleled by a 0.15 μ F 150 V AC capacitor, between a known good earth ground (such as a water pipe, or conduit) and the exposed metalic parts, one at a time. Measure the AC voltage across the combination of a 1500 Ω resistor and a 0.15 μ F capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metalic part. Voltage measured must not exceed 0.75V RMS. This corresponds to 0.2 mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

At 5000 Ω per volt or greater sensitivity, the reading should not exceed 0.75 V.



Place the probe on each exposed metalic part.

ATX-676

SPECIFICATIONS

☞ AMPLIFIER SECTION

Description		Unit	Nominal	Limit	Condition
RMS Output Power <Stereo Mode>	W	57	53	6 Ω Load, THD≤0.8%, 1 kHz	
Total Harmonic Distortion	%	0.1	0.3	1 kHz, 50 W Output, Stereo Mode	
Inter Modulation Distortion	%	0.1	0.3	50 W Output, Stereo Mode	
Input Sensitivity	AUX	mV	250	±30	50 W Output, Stereo Mode
	MIC	mV	2.5	±0.5	
Signal to Noise Ratio	AUX	dB	90	85	IHF WTD, 50 W Output
	MIC	dB	42	38	Input 4.7 KΩ Shorted
Frequency Response (at -3 dB Down)	Hz	10 ~ 75000	20 ~ 70000	AUX Input, 6 Ω Load 1 W Output	
Channel Separation	1 kHz	dB	55	50	Vol. Max. 50 W = 0 dB
Minimum Noise	mV	0.7	1		Vol. Min., Speaker Output

☞ EQ SECTION

- Ref. EQ FLAT

EQ	POPS	ROCK	CLASSIC	Unit	Nominal	Limit	Condition
100 Hz	0	3.75	2	dB	±1	±2	1 W Output
1 kHz	3.75	0	0	dB	±1	±2	1 W Output
10 kHz	2	2	2	dB	±1	±2	1 W Output

☞ AM SECTION

AM Performance test Standard

- RF Signal: 999 kHz, 5 mV/m
- Modulation: 400 Hz, 30% at VOLUME 31 POINT (OUTPUT LEVEL ; 28 POINT)
- Test Condition: 30% DEV. at 400 Hz · EQ FLAT · SURROUND OFF · X-BASS OFF

Description		Unit	Nominal	Limit	Condition	
Tuning Range		MW	kHz	520~1710	Step: 10 kHz, USA/Canada	
		MW	kHz	522~1611	Step: 9 kHz, Korea, PT INDO, Europe	
		LW	kHz	153~279	Step: 9 kHz, Europe	
Usable Sensitivity (S/N=20 dB)		MW-2Band	uV/m	1000	1500	MW: 603 kHz, 999 kHz, 1404 kHz
		MW-3Band	uV/m	1000	1500	MW: 603 kHz, 999 kHz, 1404 kHz
		LW	uV/m	1500	2000	LW: 162 kHz, 207 kHz, 252 kHz
Image Rejection		dB	25	20	1404 kHz	
IF Rejection		dB	40	35	603 kHz	
AGC Figure of Merit		dB	45	40	From 100 mV/m at 999 kHz	
Audio Response		Hz~kHz	100~2.2	120~2	999 kHz, -6 dB	
Selectivity		dB	25	20	500 uV/m, 999 kHz ± 9 kHz	
Signal to Noise Ratio	2Band	dB	40	35	999 kHz	
	3Band	dB	35	30		
RF Overload THD		%	10	15	80% MOD., 100 mV/m Input	
Whistle	3mV/m	2IF, 3IF	%	10	20	
	5mV/m	2IF, 3IF	%	10	20	
Output Voltage		Ref.790 mV	mV	±80	±60	400Hz, 5 mV, 30% MOD, Volume Level 28

FM SECTION

FM Performance Test Standard

· EQ FLAT

· SURROUND OFF

· X-BASS OFF

Tuning Range : 87.5 MHz - 107.9 MHz Area	Tuning Range : 87.5 MHz - 108 MHz Area
RF Signal : 98.1 MHz	RF Signal : 98.0 MHz
Modulation : Mono \pm 75 kHz DEV. for 1 kHz	Modulation : Mono \pm 40 kHz DEV. for 1 kHz
Stereo \pm 75 kHz, L=-R	Stereo \pm 40 kHz, L=-R

Description			Unit	Nominal	Limit	Condition
Tuning range			MHz	87.5~107.9	Korea, USA/Canada Step: 200 kHz	
			MHz	87.5~108	Europe, PT INDO, Step: 50 kHz	
Usable Sensitivity			uV	2.5	4	90.1/98.1/106.1 MHz, 30 dB \leq S/N
			uV	2.5	4	90/98/106 MHz, 26 dB \leq SN
Image Rejection			dB	35	30	106/106.1 MHz
IF Rejection			dB	80	70	90/90.1 MHz
Full Limiting			uV	2	4	-3 dB, 75 Ω
50 dB Quieting Sensitivity	Mono	75 kHz DEV.	uV	5	8	IHF B.P.F, 75 dB
		40 kHz DEV.	uV	5	8	
	Stereo	75 kHz DEV.	uV	5	8	
		40 kHz DEV.	uV	70	80	
Total Harmonic Distortion	Mono	75 kHz DEV.	%	1	1.5	IHF B.P.F, 1 kHz, 100 % MOD.
		40 kHz DEV.	%	1	1.5	
	Stereo	75 kHz DEV.	%	1.5	2	
		40 kHz DEV.	%	1.5	2	
Signal to Noise Ratio	Mono	75 kHz DEV.	dB	60	55	IHF B.P.F, 100 % MOD., 1 mV Input
		40 kHz DEV.	dB	60	55	
	Stereo	75 kHz DEV.	dB	58	54	
		40 kHz DEV.	dB	58	54	
Audio Response at -3 dB		Hz~kHz	45~14	50~13.5	98/98.1 MHz, 100% MOD., 1 mV Input	
AM Rejection Ratio		dB	40	30	100 uV~20 mV Input	
Search Level		uV	10	\pm 6 dB	75 Ω	
Automatic Stereo Threshold		uV	10	\pm 6 dB	75 Ω	
Muting Threshold		uV	10	\pm 6 dB	75 Ω	
Overload THD		%	1	1.5	100% MOD., 100 mV RF Input	
Spurious Response		dB	60	50	ANT. Input 2 uV 1/2IF, IF	
Capture Ratio				2	3	40/60 dBu
Stereo Separation	100 Hz	dB	25	20	100% MOD., 1 mV Input, IHF B.P.F	
	1 kHz	dB	25	20		
	10 kHz	dB	25	20		
Output Voltage	Mono Ref.: 2100	mV	\pm 400	\pm 700	1 kHz, 5 mV Input, 100% MOD, Volume Level 28	

GENERAL

POWER CONSUMPTION (ATX-676 + CCD-676)

D, KS, PT INDO: 240 W

DIMENSIONS (W \times H \times D)

ATX-676: 245 \times 200 \times 280 mm

CCD-676: 245 \times 200 \times 280 mm

WEIGHT (Net), (ATX676 + CCD676)

15 kg

POWER SUPPLIES

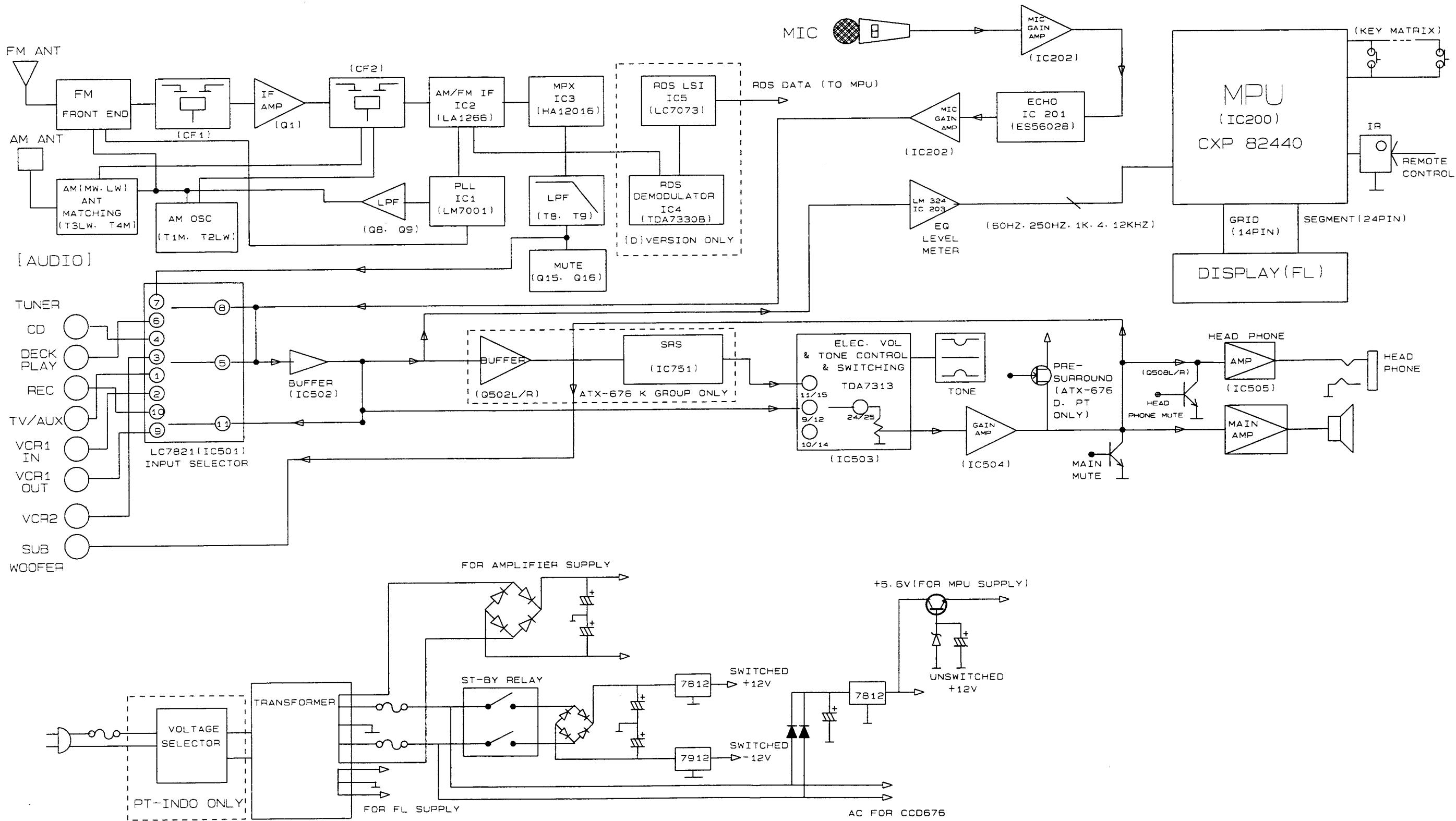
D: AC 230 V, 50 Hz (Europe Area)

KS: AC 220 V, 60 Hz (Korea Area)

PT INDO: AC 110/220 V, 50/60 Hz (multi voltage Area)

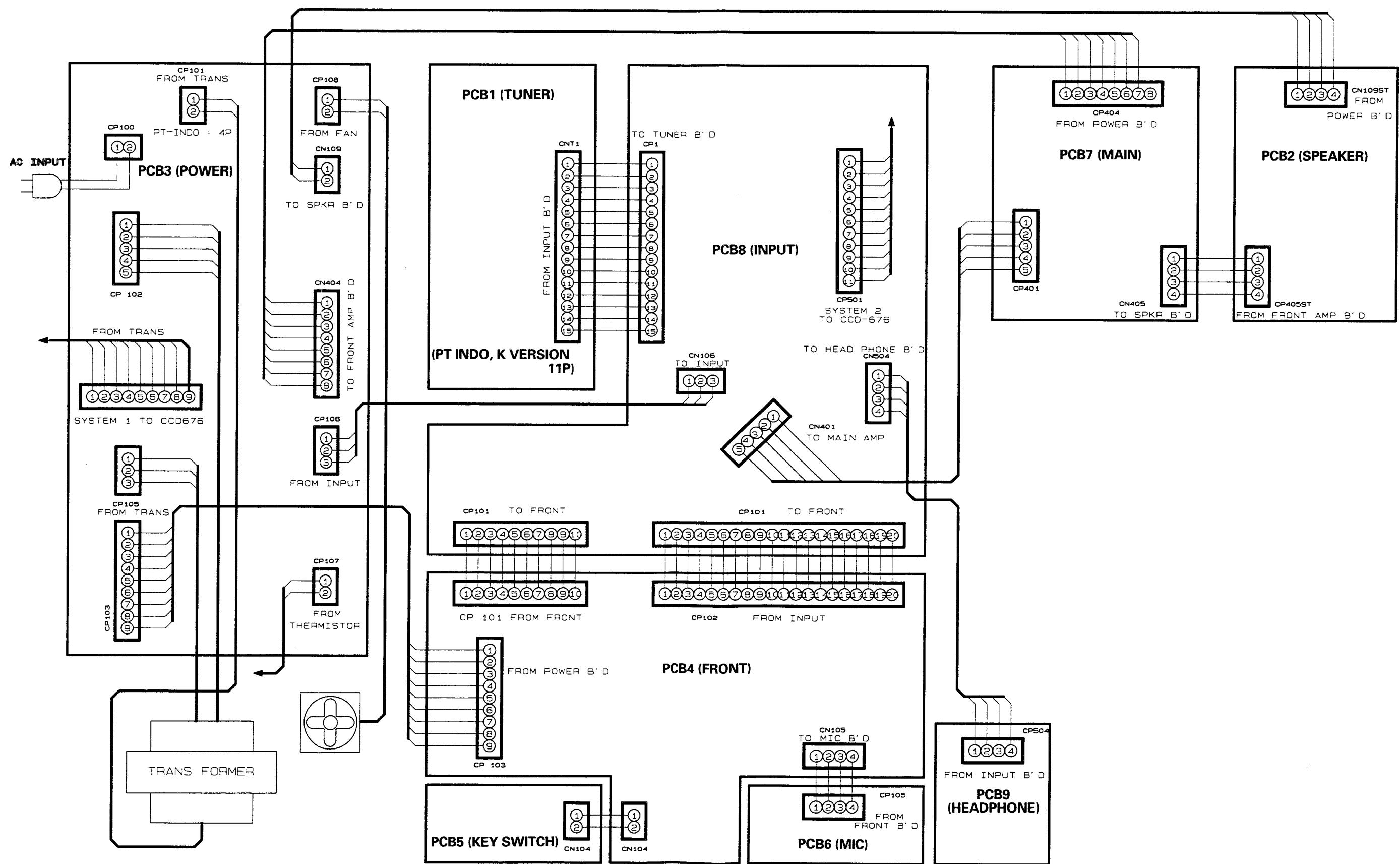
BLOCK DIAGRAM

Model No. : ATX-676



WIRING DIAGRAM

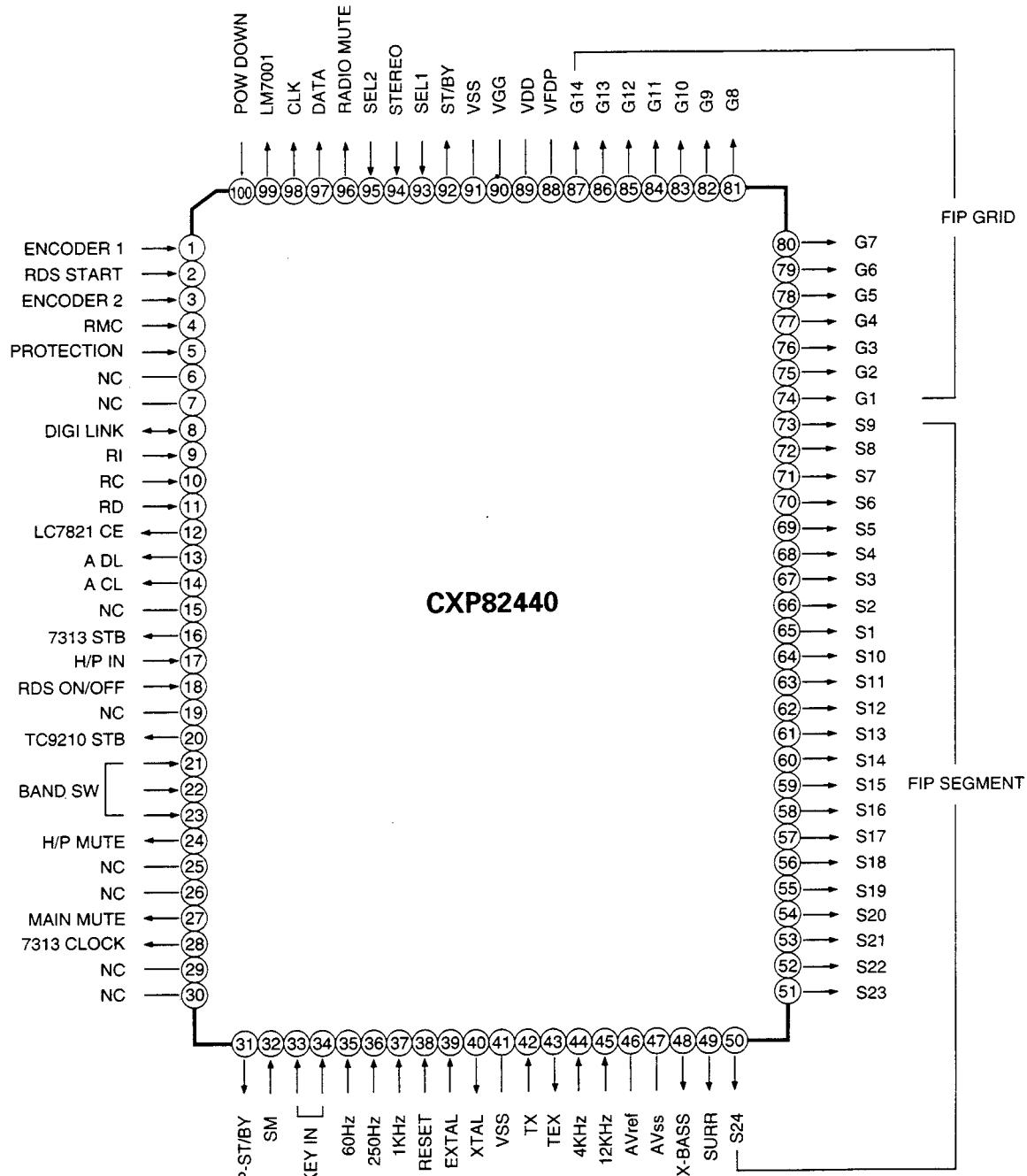
Model No. : ATX-676



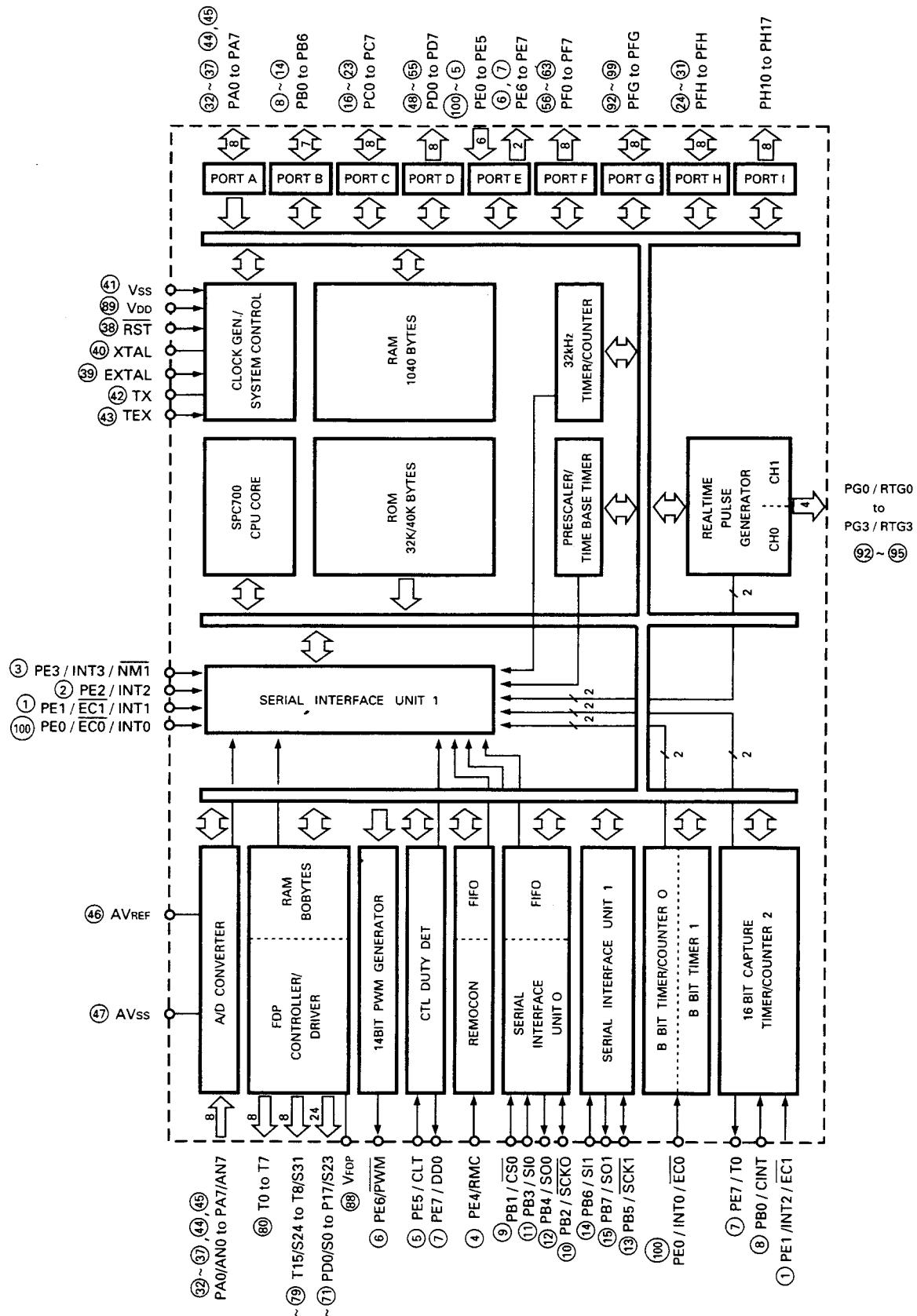
CIRCUIT DESCRIPTION

IC200 : CXP82440

1. Pin Configuration



2. Block Diagram



3. Input and Output terminal Functions

Pin No.	Symbol	Description																														
1/3	ENCODER 1/2	Signal input to decrease or increase volume by volume encoder.																														
2	RDS START	Input for LC7073 (pin14) data start.																														
4	RMC	Input for remote control signal.(At "L", it is active)																														
5	PROTECTION	Signal input for protection. If it is low, all channel mute signal levels are turned to high protect speakers and this unit. At abnormal condition, after 3 seconds elapses, it does check protection.																														
6/7	NC	Not used !																														
8	DIGI LINK	Input/Output for controlling digi-link.																														
9	RI	Input signal from TDA7330B (pin15) for ARI indication.																														
10	RC	Clock signal input from LC7073 (pin16).																														
11	RD	Data signal input from LC7073 (pin15).																														
12	LC7821 CE	Chip enable output for LC7821.																														
13	A DI	Data output for NJU9702, NJU1102 and LC7821.																														
14	A CL	Clock output for NJU9702, NJU1102 and LC7821.																														
15	NC	Not used !																														
16	7313 STB	Chip enable output for TDA7313.																														
17	H/P IN	Input for detecting headphone. When headphone is plugged or unplugged, input is high or low level.																														
18	RDS ON/OFF	Input for RDS on or off. (RDS on: "H", RDS off: "L")																														
19	NJU1102/9702 CE	Chip enable output for NJU1102 and NJM9702.																														
20	TC9210 STB	Chip enable output for TC9210.																														
21~23	BAND S/W	According to region, input for selecting the frequency band and the steps of FM and AM. Setting are as follows. <table border="1" data-bbox="550 1371 1383 1705"> <thead> <tr> <th>Region</th> <th>Frequency Band</th> <th>Step</th> <th>Pin 21</th> <th>Pin 22</th> <th>Pin 23</th> </tr> </thead> <tbody> <tr> <td>USA/Canada</td> <td>FM: 87.5 ~ 107.9 MHz AM: 520 ~ 1710 kHz</td> <td>200 kHz 10 kHz</td> <td>L</td> <td>H</td> <td>L</td> </tr> <tr> <td>Europe</td> <td>FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz 153 ~ 279 kHz</td> <td>50 kHz 9 kHz 9 kHz</td> <td>L</td> <td>L</td> <td>L</td> </tr> <tr> <td>Korea</td> <td>FM: 87.5 ~ 107.5 MHz AM: 522 ~ 1611 kHz</td> <td>200 kHz 9 kHz</td> <td>H</td> <td>H</td> <td>L</td> </tr> <tr> <td>PT/INDO</td> <td>FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz</td> <td>50 kHz 9 kHz</td> <td>H</td> <td>L</td> <td>L</td> </tr> </tbody> </table>	Region	Frequency Band	Step	Pin 21	Pin 22	Pin 23	USA/Canada	FM: 87.5 ~ 107.9 MHz AM: 520 ~ 1710 kHz	200 kHz 10 kHz	L	H	L	Europe	FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz 153 ~ 279 kHz	50 kHz 9 kHz 9 kHz	L	L	L	Korea	FM: 87.5 ~ 107.5 MHz AM: 522 ~ 1611 kHz	200 kHz 9 kHz	H	H	L	PT/INDO	FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz	50 kHz 9 kHz	H	L	L
Region	Frequency Band	Step	Pin 21	Pin 22	Pin 23																											
USA/Canada	FM: 87.5 ~ 107.9 MHz AM: 520 ~ 1710 kHz	200 kHz 10 kHz	L	H	L																											
Europe	FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz 153 ~ 279 kHz	50 kHz 9 kHz 9 kHz	L	L	L																											
Korea	FM: 87.5 ~ 107.5 MHz AM: 522 ~ 1611 kHz	200 kHz 9 kHz	H	H	L																											
PT/INDO	FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz	50 kHz 9 kHz	H	L	L																											
24	H/P MUTE	Output for headphone mute. Output, high level under the following conditions. 1. When power is tuned on or off. 2. When headphone plug is inserted. 3. When "-∞ mute signal" is received from the commander. 4. When function is changed.																														

Pin No.	Symbol	Description
25	NC	Not used !
26	NC	Not used !
27	MAIN MUTE	<p>Output for left and right channels mute.</p> <p>Output, low level under the following conditions.</p> <ol style="list-style-type: none"> 1. When power is tuned on or off. 2. When headphone plug is inserted. 3. When "-∞ mute signal" is received from the commander. 4. When function is changed.
28	7313 CLOCK	Clock output for TDA7313.
29/30	NC	Not used !
31	P-ST/BY	<p>Signal output for stand-by mute.</p> <p>At abnormal condition, after 3 sceonds elapses, it dose check protection.</p>
32	SM	Input to detect the signal strength of RDS station.
33/34	KEY IN	Input data for key scan.
35	60 Hz	Input for controlling the level display at 60 Hz.
36	250 Hz	Input for controlling the level display at 250 Hz.
37	1 kHz	Input for controlling the level display at 1 kHz.
38	RESET	Input to reset u-com.
39/40	EXTAL/XTAL	Input/Output for crystal oscillator.
41	Vss	Ground
42/43	TX/TEX	Input/Output for crystal oscillator.
44	4 kHz	Input for controlling the level display at 4 kHz.
45	12 kHz	Input for controlling the level display at 12 kHz.
46	AVref	Reference voltage
47	AVss	This pin provides the analog ground potential.
48	X-BASS	<p>Output to light up X-BASS LED.</p> <p>At "x-bass on", "H" and at "x-bass off", "L".</p>
49	SURR	<p>Output to light up SURROUND LED.</p> <p>At "surround on", "H" and at "surround off", "L".</p>
50~73	S24~S10, S1~S9	Output for FIP segment.
74~87	G1~G14	Output for FIP grid.
88	V _{FDP}	-30V power supply for FIP.
89	VDD	+5V power supply.
90	VGG	This pin should be connected to VDD during operation.
91	Vss	This pin provides the ground potential.
92	ST/BY	<p>When the power is on, control data output is "H".</p> <p>When the power is off, control data output is "L" and last memory function is activated.</p>

Pin No.	Symbol	Description			
93/95	SEL1/SEL2	Input for selecting surround mode.			
		SEL 1	DOLBY PROLOGIC	SRS	PRE SURROUND
		SEL 2	L	L	H
94	STEREO	Input for lighting the STERO indicator.(At "L", it is active)			
96	RADIO MUTE	Output for tuner mute.(At "H", it is active)			
97/98	DATA/CLK	Clock/Data output for LM7001.			
99	LM7001	Chip enable output for LM7001.			
100	POW DOWN	Input for power down.(At "L", it is active)			

ALIGNMENT PROCEDURES

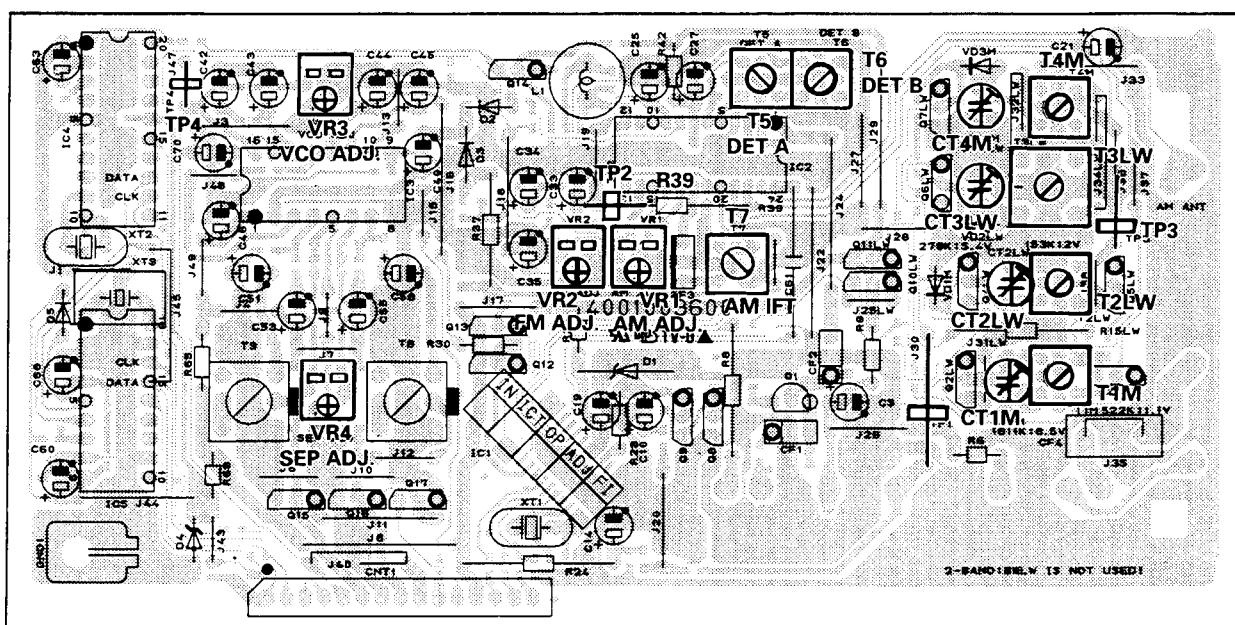
TUNER

1. Equipment Required

- AM Standard Signal Generator (AM SSG)
- Oscilloscope
- AC Voltmeter
- FM Standard Signal Generator (FM SSG)
- Stereo Modulator
- Audio Generator
- Distortion Meter
- DC Voltmeter
- Frequency Counter

Note : Disconnect external FM antenna prior to alignment.

2. Alignment and Test Point



3. AM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator modulation : 30 %
- RF signal frequency : 400 Hz
- Switch : Press the BAND button to AM

3	IF	1000 kHz (999 kHz)	1000 kHz (999 kHz)	IF genescope to speaker terminal of L or R channel	T7 AM IFT	Symmetrical curve on AM IF genescope
4	Tuned Level	1000 kHz (999 kHz) 800 μ V/m	1000 kHz (999 kHz)		VR1	"Tuned" flag in the FL display light on

4. LW Alignment

- Switch : Press the BAND button to LW

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for			
1	Tuning Voltage	153 kHz	153 kHz 1)	DC Volt meter to J30(TP1)	T2LW LW OSC(A)	DC 2 ± 0.2 V			
		279 kHz	279 kHz 2)		CT2LM	DC 5.4 ± 0.3 V			
* Repeat the step 1) and 2) until the DC voltmeter reads the tuning voltage mentioned above.									
2	RF Tuning	162 kHz	162 kHz 1)	AC voltmeter and oscilloscope to speaker terminal of L or R channel	T3LW LW ANT(B)	Maximize audio output			
		252 kHz	252 kHz 2)		CT3LW				
* Feed signal should be fed to loop antenna through the test loop antenna 60 cm distant from the appliance.									
* Repeat the step 1) and 2) until no further improvement occurs.									

5. FM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator deviation : 40 kHz (75 kHz)
- RF signal frequency : 1 kHz
- Switch : Press the BAND button to FM and the FM MODE button to MONO

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Band Width	98.0 MHz (98.1 MHz)	98.0 MHz (98.1 MHz)	DC Volt meter to R39(TP2-TP3)	T5	Zero reading on DC Volt meter
2	THD	98.0 MHz (98.1 MHz)	98.0 MHz (98.1 MHz)	Distortion meter to speaker terminal of L or R channel	T6	Minimize distortion
3	Tuned Level	98.0 MHz(98.1 MHz) SSG output level : 10 μ V/m	98.0 MHz (98.1 MHz)		VR2	"Tuned" flag in the FL display light on

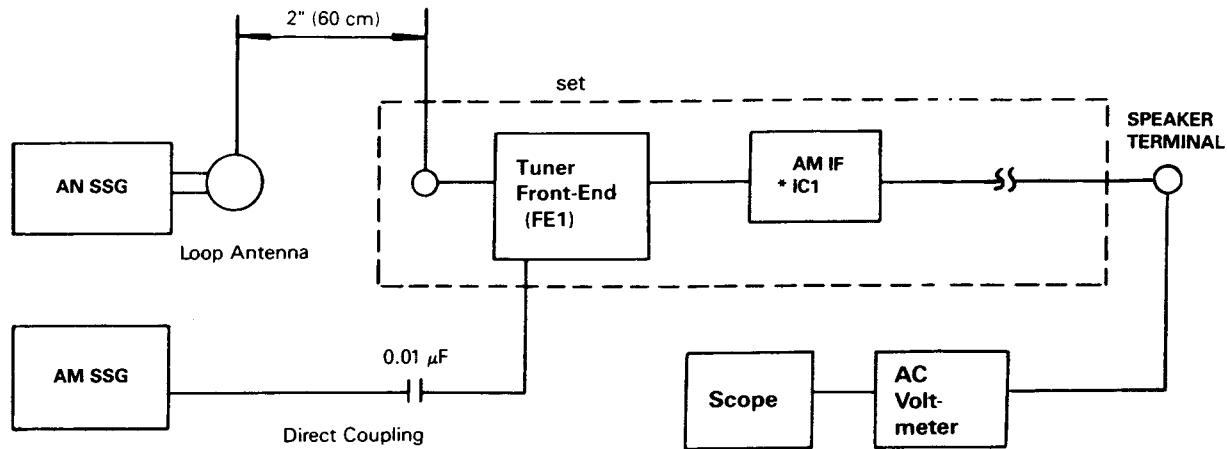
6. MPX Alignment

- Signal generator frequency : 98 MHz
- Signal generator deviation : 40 kHz (75 kHz)
- RF signal frequency : 1 kHz
- Signal generator output level : 1000 μ V/m
- Connect signal generator to FM antenna terminal through FM dummy antenna (75 Ω)
- Switch : Press the BAND button to FM and the FM MODE button to STEREO

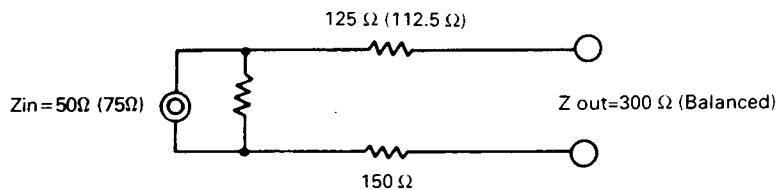
Step	Subject	19 kHz Modulation Level	Signal Generator Setting	Equipment Connection	Adjustment Point	Adjust for
1	VCO	8 % Modulation	Pilot off Carrier only	Frequency counter to TP4(HOT) of PCB and ground	VR3	76 kHz
2	Separation R → L	8 % Modulation	Pilot on	AC voltmeter to speaker terminal of R channel	VR4	Set AC voltmeter to 0 dB
				AC voltmeter to speaker terminal of L channel		AC voltmeter reading should be at least 20 dB below
3	Separation L → R	8 % Modulation	Pilot on	AC voltmeter to speaker terminal of L channel	VR4	Set AC voltmeter to 0 dB
				AC voltmeter to speaker terminal of R channel		AC voltmeter reading should be at least 20 dB below
If you could not obtain -20 dB readings in steps 2 and 3, readjust VR4 until you obtain -20 dB readings for both steps 3 and 4. Nominal is -25 dB.						

7. Equipment Connection

7-1. AM Alignment Connection

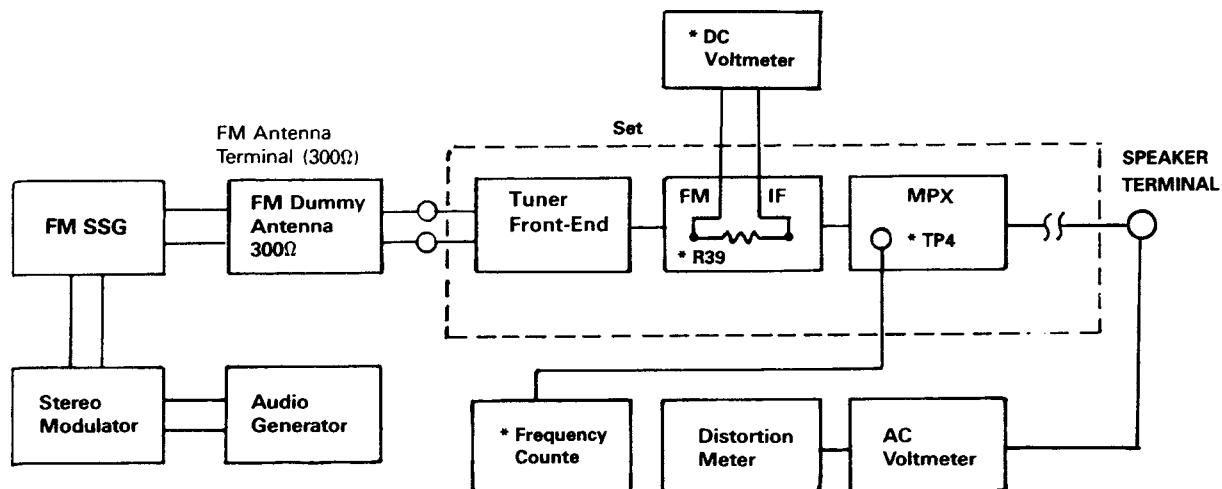


7-2. FM Dummy Antenna

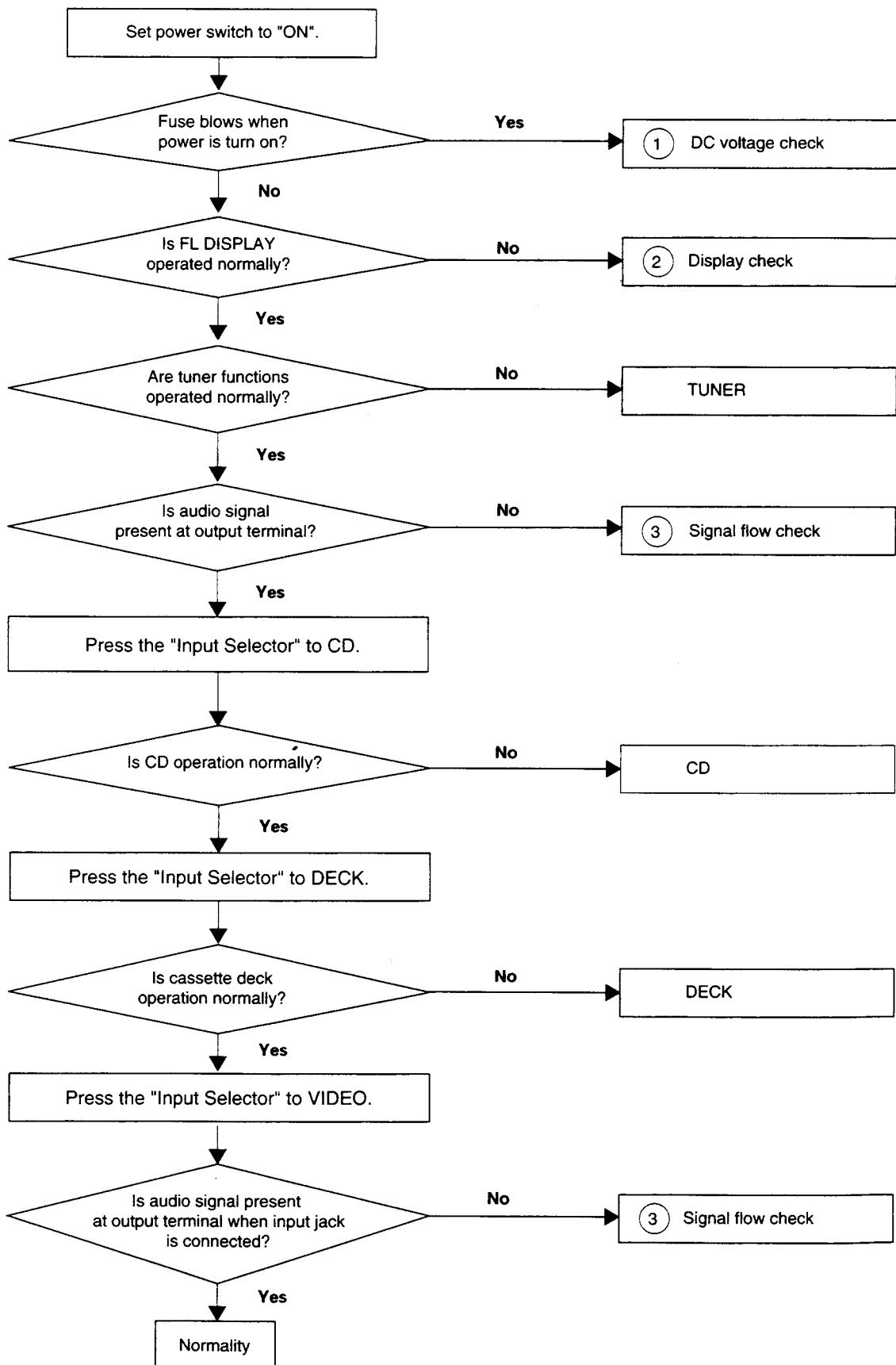


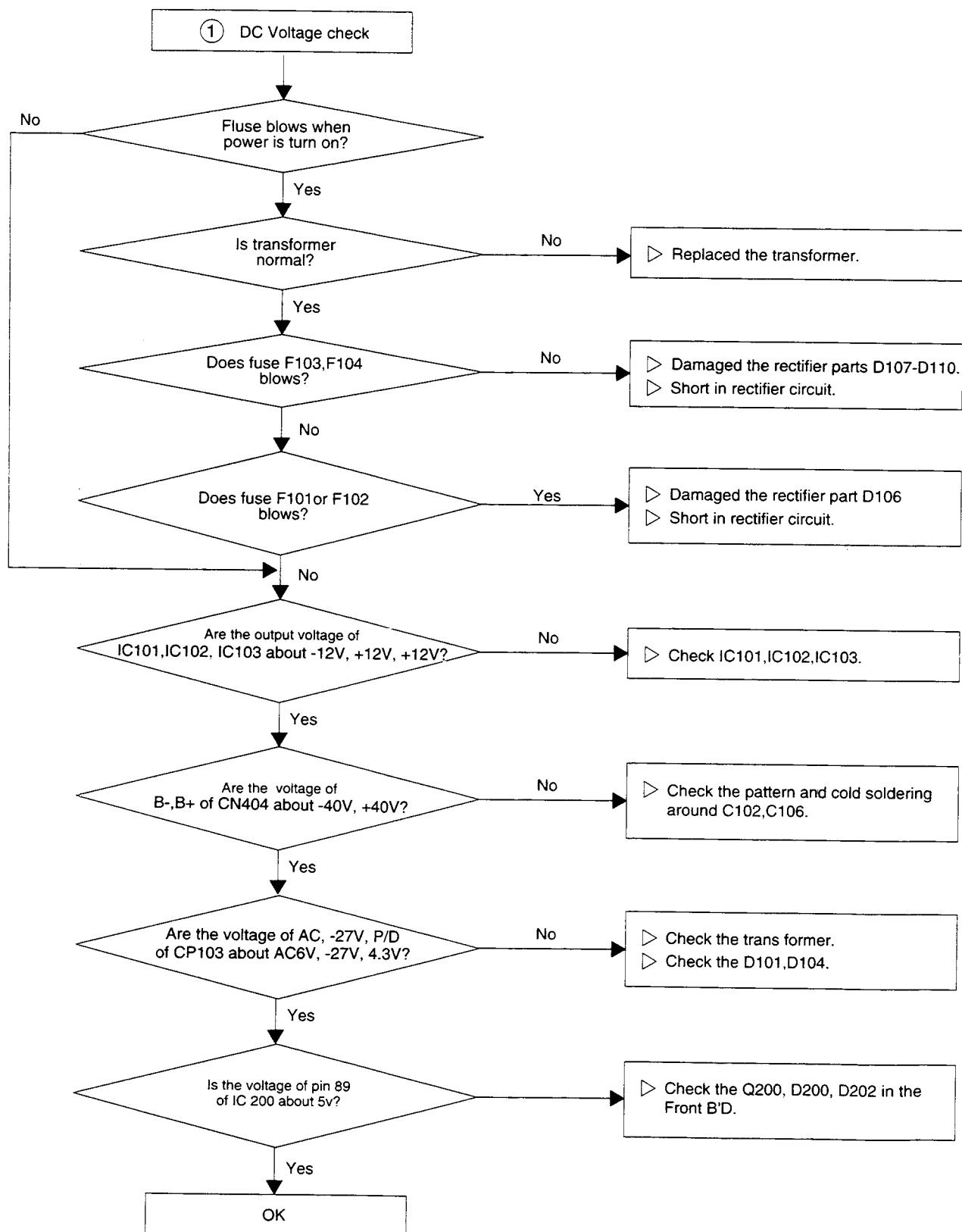
FM Dummy Antenna to 300Ω Antenna terminal of system.

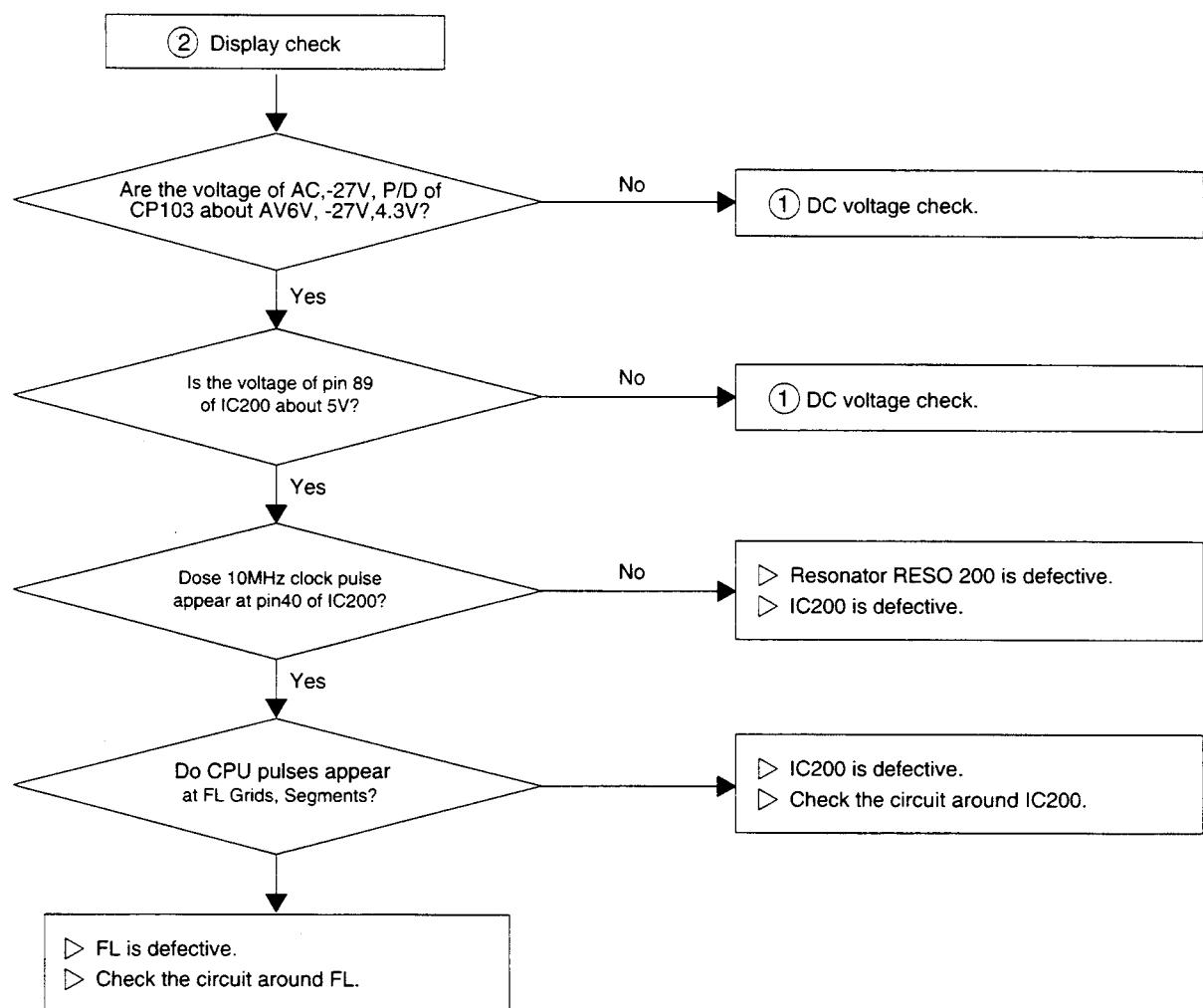
7-3. FM RF/IF and MPX Alignment Connection

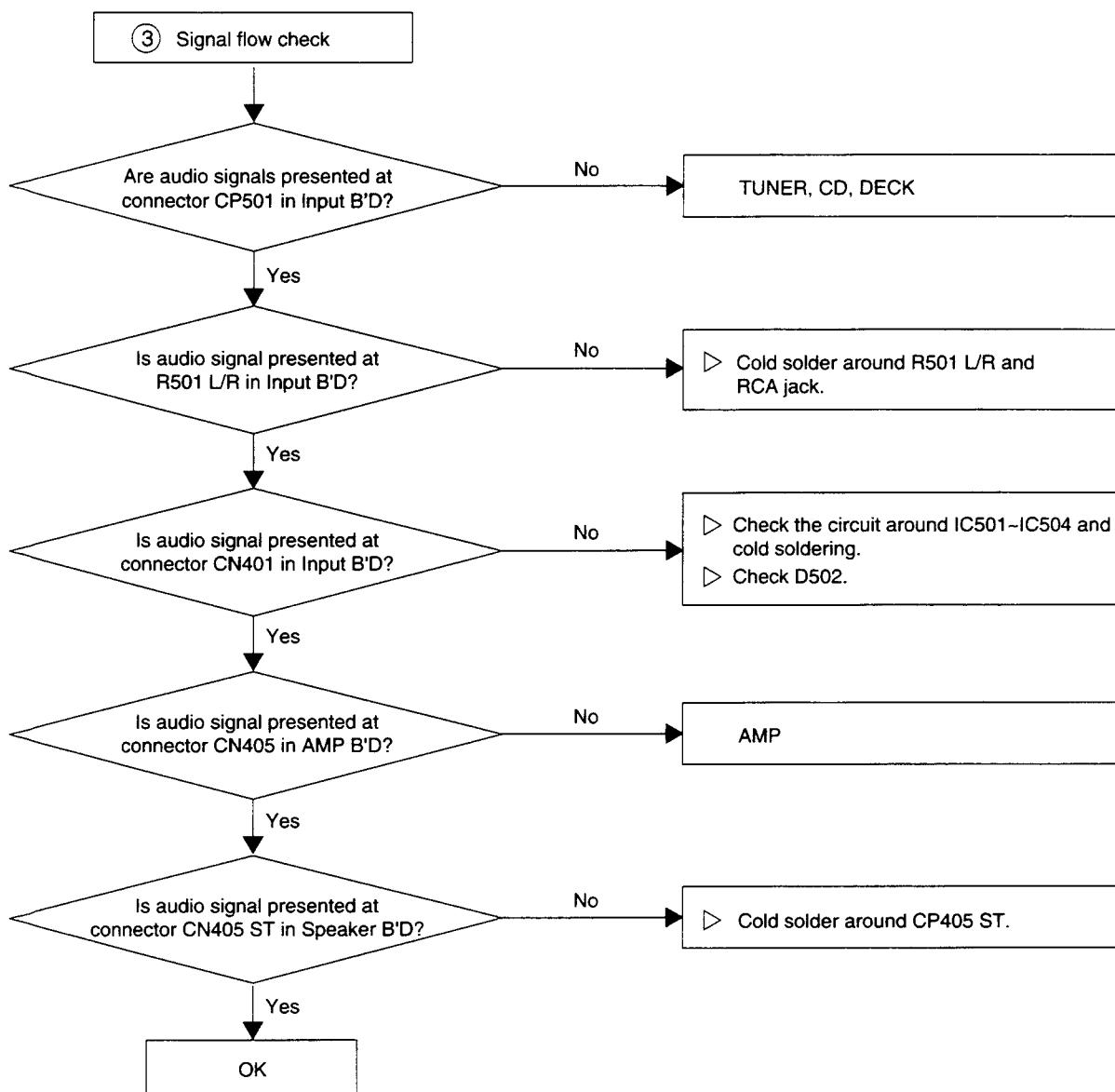


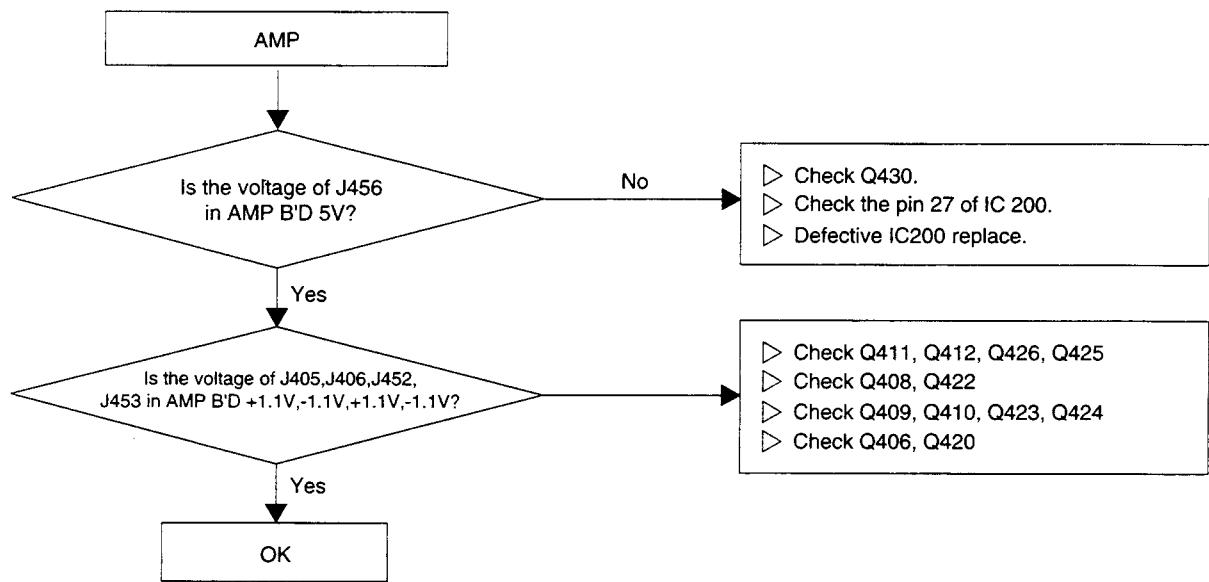
TROUBLESHOOTING

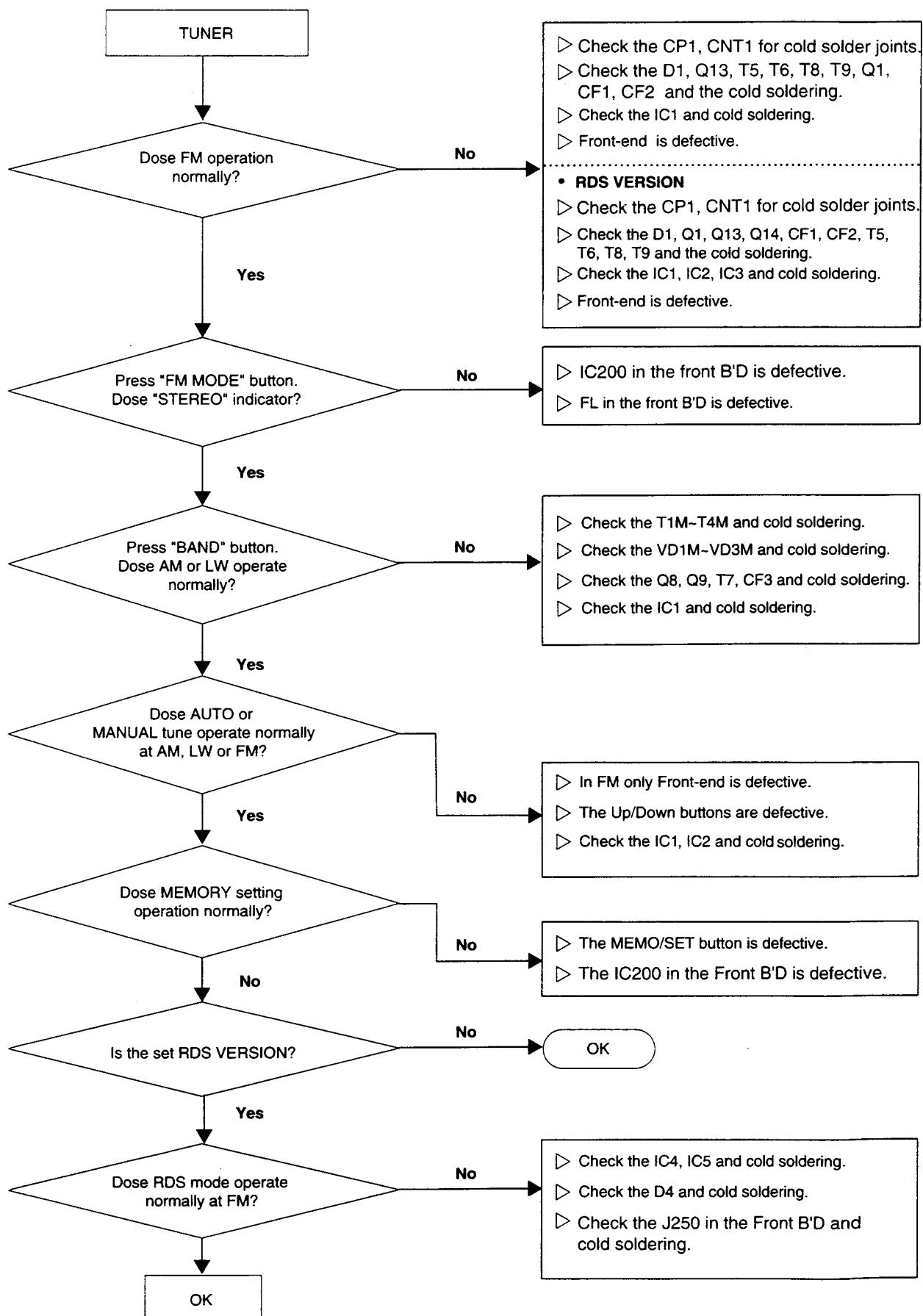












MECHANICAL PARTS LIST

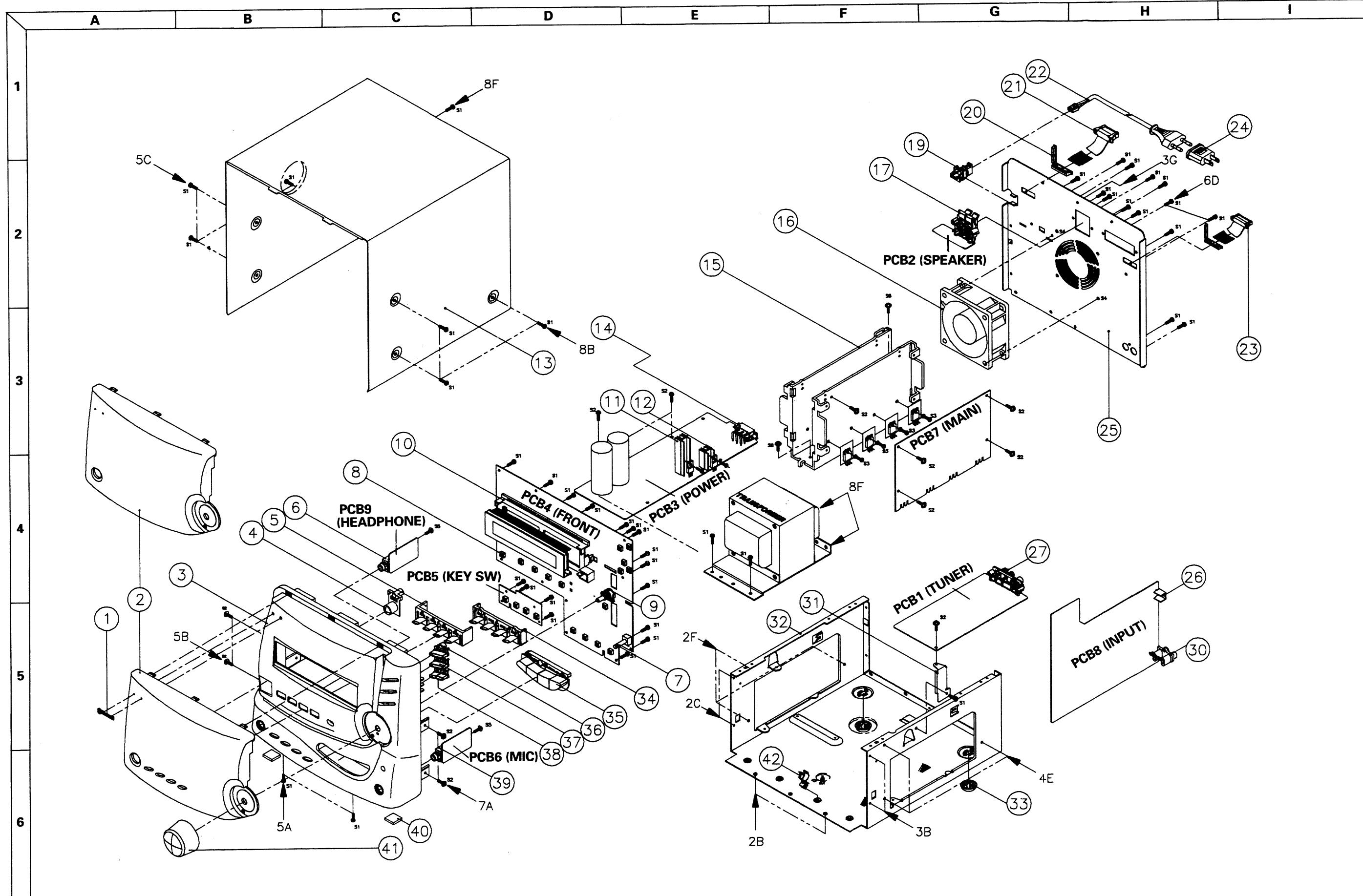
REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
PACKAGE				
	BOX CARTON	601704178001	1	K
	BOX CARTON	601704178002	1	D,PT INDO
	CUSHION POLY	623004374401	1	
	FILM SOFT PE	632004002201	1	
	POLY BAG	633004009201	1	
ACCESSORIES				
	ANTENNA WIRE FM	E60501002000	1	K,PT INDO
	ANTENNA WIRE FM	E60501004000	1	D
	COMPACT DISC DEMONSTRATION	651004003001	1	K(ONLY)
	COMMANDER ASSY	830004025U01	1	K
	COMMANDER ASSY	830004025U02	1	D,PT INDO
	BATTERY 1.5V AA(R6M)	G670001R5012	2	K(ONLY)
	ANTENNA AM LOOP STAND STRIP WIRE	E60501009000	1	K,PT INDO
	ANTENNA AM LOOP STAND TYPE	E60101000000	1	D
	MANUAL INSTRUCTION	570704584001	1	K
	MANUAL INSTRUCTION	570704583001	1	PT INDO
	MANUAL INSTRUCTION	570704583003	1	D
CABINET & CHASSIS				
1	BADGE, SHERWOOD	563704066101	1	
(1)	BADGE, INKEL	563704067101	1	K(ONLY)
2	WINDOW PANEL	507704002301	1	
(2)	WINDOW PANEL	507704003301	1	D(ONLY)
3	PANEL FRONT	306704212101	1	
4	BUTTON POWER	509006660101	1	
5	BUTTON RDS, 4KEY	509005900101	1	
6	JACK, HTJ064-05B	G40204022193	1	
7(VR201)	VOLUME MIC, RK09K1130205-50KB	C45111530220	1	
8	SWITCH TACT (H:5)	G18004050001	15	
(8)	SWITCH TACT (H:5)	G18004050001	4	D(ONLY)
9(VR202)	SWITCH, ROTARY ENCODER	C49004106001	1	
10	GUIDE HOLDER, FL	432004081101	1	
11	HEATSINK, REGULATOR TR (H:45)	212004434801	1	
12	HEATSINK, REGULATOR TR (H:30)	212004433801	1	
13	COVER TOP	300704210603	1	
14	VOLTAGE SELECTOR, 6P	G06004054001	1	PT INDO(ONLY)
15	HEATSINK, POWER	212004253801	1	
16	FAN	G72004003001	1	
17	TERMINAL SPEAKER, PUSH TYPE, 4P	G59404021000	1	
19	STOPPER, CORD	438004016201	1	
20	STOPPER, CONNECTOR 11P	L10951044110	2	
21	SYSTEM CONNECTOR, 9P	L03358609701	1	
22	CORD AC POWER	L06104012101	1	A
(22)	CORD AC POWER	L06104040103	1	K
(22)	CORD AC POWER	L06104001101	1	D,PT INDO
23	SYSTEM CONNECTOR, 11P	L10928511800	1	
24	ADAPTER	L10928300410	1	PT INDO(ONLY)
25	CHASSIS BACK	320704266601	1	K
(25)	CHASSIS BACK	320704266602	1	D
(25)	CHASSIS BACK	320704266603	1	PT INDO
26	GROUND PLAT	307004552601	1	
27	TERMINAL ANTENNA, SCREW TYPE	G59004045000	1	D(ONLY)
(27)	TERMINAL ANTENNA, PUSH TYPE	G59004044000	1	
30	JACK RCA, 2P	G60120044001	1	
31	BRACKET PCB	401005622601	1	
32	CHASSIS MAIN	320004475601	1	
33	FOOT	400004057101	2	
34	BUTTON TACT, 4KEY	509005898101	1	
35	BUTTON FUNCTION	509704636101	1	
36	BUTTON INPUT	509705461101	1	
37	BUTTON SURROUND	509705463101	1	
38	BUTTON X-BASS	509705464101	1	
39(JACK380)	JACK, HTJ064-05B	G40204022193	1	
40	CUSHION FOOT	405004464501	2	
41	KNOB ROTARY VOLUME	509006663101	1	
42	CLAMP WIRE	433004063301	1	
HARDWARE KIT				
S1	SCREW, #8 BTT 3X8B	BO20030083B1	52	
(S1)	SCREW, #8 BTT 3X8B	BO20030083B1	54	PT INDO
S2	SCREW, #8 WPTT 3X6Y	BO20030061V1	16	
S3	SCREW, HEATSINK (L:12)	150704113601	4	
S4	SCREW, #2PTC 5X10B	B010545103P1	2	
S5	SCREW, MECHA	150704102601	2	
S6	SCREW, WPM 4X10Y	B010040101W1	2	
N1	NUT, FLANGE M4Y	B200000401F0	2	
MISCELLANEOUS				
	POWER TRANSFORMER, 220V 60Hz	820028101417	1	K
	POWER TRANSFORMER, 230V 50Hz	820028101407	1	D
	POWER TRANSFORMER, 110/220V 50/60Hz	820028101427	1	PT INDO
	THERMISTER, 2P 180mm	F34055030000	1	

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list are of special significance to safety. When replacing a component identified with Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

EXPLODED VIEW

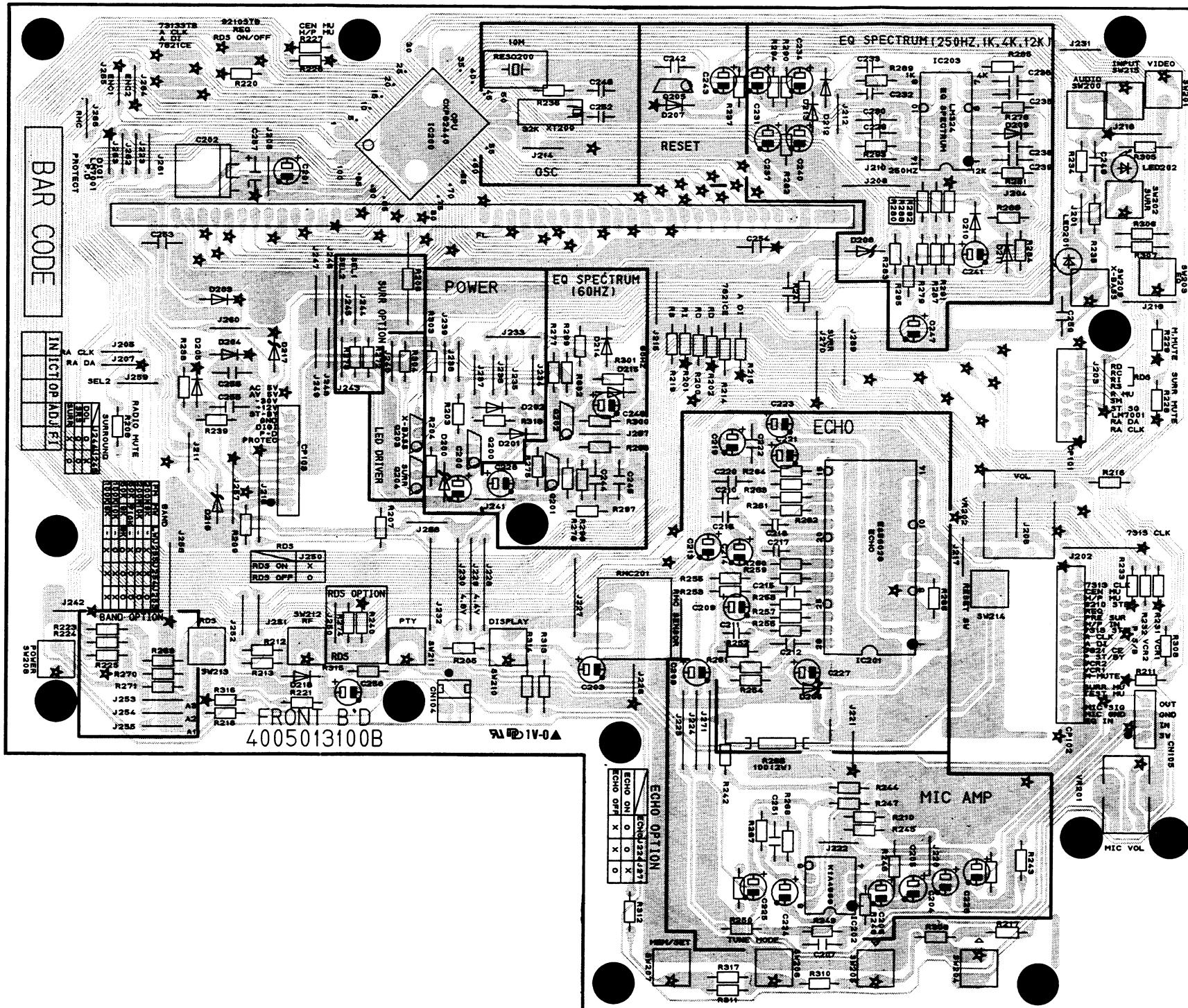
Model No. : ATX-676



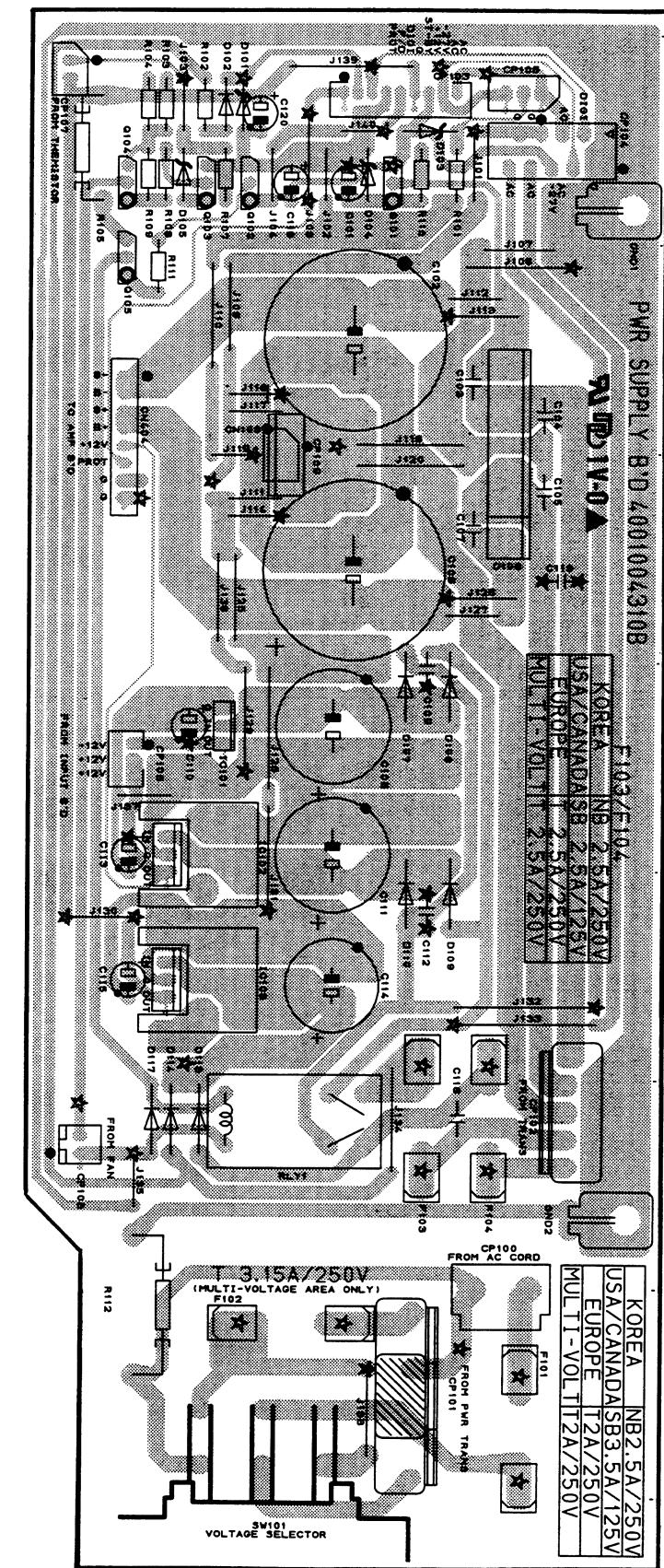
PRINTED CIRCUIT BOARDS

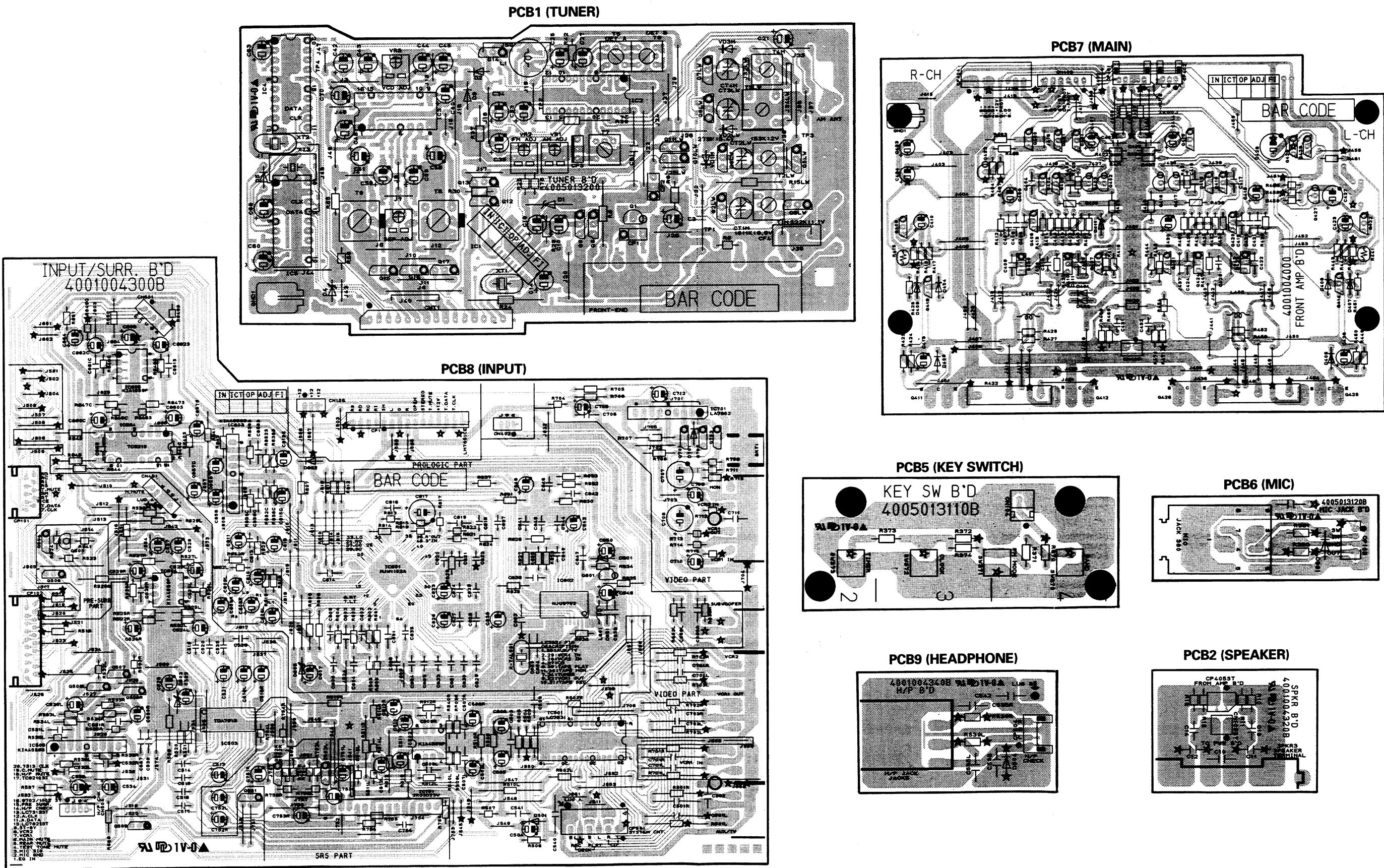
Model No. : ATX-676

PCB4 (FRONT)



PCB3 (POWER)





ELECTRICAL PARTS LIST

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION	REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION	REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION			
PCB1 ASSEMBLY P.C. BOARD TUNER(PT INDO, K VERSION)																	
C1/C2	CAPACITORS				R3	CHIP	1.8 kohm	1/10 W	J C20001826020	1	C29/C30	CERAMIC CHIP CH	100 pF	50 V	J D01010116721	2	
C1/C2	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	2	R4/R5	CHIP	330 ohm	1/10 W	J C20003316020	2	C31/C32	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	2
C3	ELECTROLYTIC SG	100 μ F	16 V	M D04010108310	1	R8	METAL FILM	470 ohm	1/5 W	J C06004716P52	1	C33	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R708710	1
C4	CERAMIC CHIP CH	470 pF	50 V	J D01047116721	1	R9	METAL FILM	47 ohm	1/5 W	J C06004706P52	1	C34	ELECTROLYTIC SG	3.3 μ F	50 V	M D0403R308710	1
C5	CERAMIC CHIP CH	12 pF	50 V	J D01012016721	1	R10	CHIP	100 kohm	1/10 W	J C20001046020	1	C35	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R708710	1
C9	CERAMIC CHIP	0.047 μ F	50 V	Z D01147359721	1	R18	CHIP	100 kohm	1/10 W	J C20001046020	1	C36	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	1
C10	ELECTROLYTIC SG	1 μ F	50 V	M D04001008710	1	R20	CHIP	1 kohm	1/10 W	J C20001026020	1	C37	CERAMIC CHIP	0.003 μ F	50 V	Z D01133217721	1
C11	CERAMIC CHIP	0.01 μ F	50 V	Z D01110317721	1	R21	CHIP	10 kohm	1/10 W	J C20001036020	1	C38	CERAMIC CHIP	0.039 μ F	50 V	Z D01139359721	1
C12	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	1	R22	CHIP	1.5 kohm	1/10 W	J C20001526020	1	C39	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	1
C13	CERAMIC CHIP	0.01 μ F	50 V	Z D01110317721	1	R23	METAL FILM	820 ohm	1/5 W	J C06008216P52	1	C40	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R708710	1
C14	ELECTROLYTIC SG	47 μ F	16 V	M D04047008310	1	R24	METAL FILM	270 ohm	1/5 W	J C06002716P52	1	C41	CERAMIC CHIP	0.001 μ F	50 V	Z D01110217721	1
C15	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	1	R25	METAL FILM	390 ohm	1/5 W	J C06003916P52	1	C42	ELECTROLYTIC SG	3.3 μ F	50 V	M D0403R308710	1
C16/C17	CERAMIC CHIP CH	18 pF	50 V	J D01018016721	2	R26-R28	CHIP	1 kohm	1/10 W	J C20001026020	3	C43/C44	ELECTROLYTIC SG	1 μ F	50 V	M D04001008710	2
C18	CERAMIC CHIP CH	100 pF	50 V	J D01010116721	1	R30	CARBON FILM	33 kohm	1/5 W	J C00003336P52	1	C45	ELECTROLYTIC SG	3.3 μ F	50 V	M D0403R308710	1
C19	ELECTROLYTIC SG	47 μ F	16 V	M D04047008310	1	R31	CHIP	2.7 kohm	1/10 W	J C20002736020	1	C46	CERAMIC CHIP	0.047 μ F	50 V	Z D01147359721	1
C20	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	1	R32	CHIP	68 kohm	1/10 W	J C20006836020	1	C47	CERAMIC CHIP CH	680 pF	50 V	J D01068116721	1
C21	ELECTROLYTIC SG	10 μ F	50 V	M D04010008710	1	R33	CHIP	10 kohm	1/10 W	J C20001036020	1	C48	ELECTROLYTIC SG	100 μ F	16 V	M D04010108310	1
C22-C24	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	3	R34	CHIP	22 kohm	1/10 W	J C20002236020	1	C49/C50	CERAMIC CHIP	0.001 μ F	50 V	Z D01110217721	2
C25	ELECTROLYTIC SG	1 μ F	50 V	M D04001008710	1	R35	CHIP	2.4 kohm	1/10 W	J C20002426020	1	C51	ELECTROLYTIC SG	2.2 μ F	50 V	M D0402R208710	1
C26	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	1	(R35)	CHIP	1 kohm	1/10 W	J C20001026020	1	C52	CERAMIC CHIP	0.002 μ F	50 V	Z D01122217721	1
C27	ELECTROLYTIC SG	47 μ F	16 V	M D04047008310	1	R36	CHIP	1.8 kohm	1/10 W	J C20001826020	1	C53	ELECTROLYTIC SG	22 μ F	25 V	M D0422008410	1
C28	CERAMIC CHIP CH	330 pF	50 V	J D01033116721	1	R37	CARBON FILM	100 kohm	1/5 W	J C00001046P52	1	C54	CERAMIC CHIP CH	270 pF	50 V	J D01027116721	1
C32	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	1	R38	CHIP	22 ohm	1/10 W	J C20002206020	1	C55	ELECTROLYTIC SG	22 μ F	25 V	M D0422008410	1
C33	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R708710	1	(R39)	CARBON FILM	39 kohm	1/5 W	J C00003936P52	1	C56	ELECTROLYTIC SG	2.2 μ F	50 V	M D0402R208710	1
C34	ELECTROLYTIC SG	3.3 μ F	50 V	M D0403R308710	1	R40	CHIP	10 kohm	1/10 W	J C20001036020	1	C57-C59	CERAMIC CHIP	0.002 μ F	50 V	Z D01122217721	3
C35	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R708710	1	R41	CHIP	3.3 kohm	1/10 W	J C20003326020	1	C60	ELECTROLYTIC SG	47 μ F	25 V	M D04047008410	1
C36	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	1	R42	METAL FILM	47 ohm	1/5 W	J C06004706P52	1	C61	CERAMIC TUBULAR	10000 pF	16 V	J D00510377353	1
C37	CERAMIC CHIP	0.003 μ F	50 V	Z D01133217721	1	R43	CHIP	0 ohm	1/10 W	J C20000006020	1	C62	CERAMIC CHIP CH	270 pF	50 V	J D01027116721	1
C38	CERAMIC CHIP	0.039 μ F	50 V	Z D01139359721	1	R46	CHIP	100 kohm	1/10 W	J C20001046020	1	C63	ELECTROLYTIC SG	10 μ F	50 V	M D04010008710	1
C39	CERAMIC CHIP	0.022 μ F	50 V	Z D01122317721	1	R48	CHIP	5.6 kohm	1/10 W	J C20005626020	1	C64	CERAMIC CHIP	0.1 μ F	50 V	Z D01110217721	1
C40	ELECTROLYTIC SG	4.7 μ F	50 V	M D0404R708710	1	R49	CHIP	1 kohm	1/10 W	J C20001026020	1	C65/C66	CERAMIC CHIP CH	27 pF	50 V	J D0127016721	2
C41	CERAMIC CHIP	0.001 μ F	50 V	Z D01110217721	1	R50	CHIP	100 kohm	1/10 W	J C20001046020	1	C67	CERAMIC CHIP	0.1 μ F	50 V	Z D01110459721	1
C42	ELECTROLYTIC SG	3.3 μ F	50 V	M D0403R308710	1	R51	CHIP	5.6 kohm	1/10 W	J C20005626020	1	C68	ELECTROLYTIC SG	10 μ F	50 V	M D04100008710	1
C43/C44	ELECTROLYTIC SG	1 μ F	50 V	M D04001008710	2	R52	CHIP	2.7 kohm	1/10 W	J C20002726020	1	C69	CERAMIC CHIP	0.1 μ F	50 V	Z D01110459721	1
C45	ELECTROLYTIC SG	3.3 μ F	50 V	M D0403R308710	1	R53/R54	CHIP	51 kohm	1/10 W	J C20005136020	2	C70	ELECTROLYTIC SG	1 μ F	50 V	M D04001008710	1
C46	CERAMIC CHIP	0.047 μ F	50 V	Z D01147359721	1	(R53/R54)	CHIP	47 kohm	1/10 W	J C20004736020	2	C71	CERAMIC CHIP	10 pF	50 V	J D0111056721	1
C47	CERAMIC CHIP CH	680 pF	50 V	J D01068116721	1	R55	CHIP	2.7 kohm	1/10 W	J C20002726020	1	CT1M	TRIMMER, 20 pF			D11020090110	1
C48	ELECTROLYTIC SG	100 μ F	16 V	M D04010108310	1	R56/R57	CHIP	3.9 kohm	1/10 W	J C20003926020	2	CT2L	TRIMMER, 20 pF			D11020090110	1
C49/C50	CERAMIC CHIP	0.001 μ F	50 V	Z D01110217721	2	(R56/R57)	CHIP	6.8 kohm</td									

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
R4/R5	CHIP	330 ohm 1/10 W	J C20003316020	2
R6	METAL FILM	100 kohm 1/5 W	J C06001046P52	1
R7	CHIP	22 kohm 1/10 W	J C20002236020	1
R8	METAL FILM	470 ohm 1/5 W	J C06004716P52	1
R9	METAL FILM	47 ohm 1/5 W	J C06004706P52	1
R10	CHIP	100 kohm 1/10 W	J C20001046020	1
R11LW	CHIP	1.5 Mohm 1/10 W	J C200015156020	1
R12LW	CHIP	47 kohm 1/10 W	J C20004736020	1
R13LW	CHIP	47 kohm 1/10 W	J C20004736020	1
R14LW	CHIP	47 kohm 1/10 W	J C20004736020	1
R15LW	CHIP	47 kohm 1/10 W	J C20004736020	1
R16LW	CHIP	100 kohm 1/10 W	J C20001046020	1
R17LW	CHIP	47 kohm 1/10 W	J C20004736020	1
R18	CHIP	100 kohm 1/10 W	J C20001046020	1
R19LW	CHIP	47 kohm 1/10 W	J C20004736020	1
R20	CHIP	1 kohm 1/10 W	J C20001026020	1
R21	CHIP	10 kohm 1/10 W	J C20001036020	1
R22	CHIP	1.5 kohm 1/10 W	J C20001526020	1
R23	METAL FILM	820 ohm 1/5 W	J C06008216P52	1
R24	METAL FILM	270 ohm 1/5 W	J C06002716P52	1
R25	METAL FILM	390 ohm 1/5 W	J C06003916P52	1
R26-R28	CHIP	1 kohm 1/10 W	J C20001026020	3
R29LW	CHIP	10 kohm 1/10 W	J C20001036020	1
R30	CARBON FILM	33 kohm 1/5 W	J C00003336P52	1
R31	CHIP	2.7 kohm 1/10 W	J C20002726020	1
R32	CHIP	68 kohm 1/10 W	J C20006836020	1
R33	CHIP	10 kohm 1/10 W	J C20001036020	1
R34	CHIP	22 kohm 1/10 W	J C20002236020	1
R35	CHIP	3.9 kohm 1/10 W	J C20003926020	1
R36	CHIP	1.8 kohm 1/10 W	J C20001826020	1
R37	METAL FILM	100 kohm 1/5 W	J C06001046P52	1
R38	CHIP	22 ohm 1/10 W	J C20002206020	1
R39	CARBON FILM	39 kohm 1/5 W	J C00003936P52	1
R40	CHIP	10 kohm 1/10 W	J C20001036020	1
R41	CHIP	3.3 kohm 1/10 W	J C20003326020	1
R42	METAL FILM	47 ohm 1/5 W	J C06004706P52	1
R43	CHIP	1.8 kohm 1/10 W	J C20001826020	1
R44	CHIP	47 kohm 1/10 W	J C20004736020	1
R45	CHIP	1 kohm 1/10 W	J C20001026020	1
R46	CHIP	100 kohm 1/10 W	J C20001046020	1
R47	CHIP	22 ohm 1/10 W	J C20002206020	1
R48	CHIP	5.6 kohm 1/10 W	J C20005626020	1
R49	CHIP	1 kohm 1/10 W	J C20001026020	1
R50	CHIP	100 kohm 1/10 W	J C20001046020	1
R51	CHIP	5.6 kohm 1/10 W	J C20005626020	1
R52	CHIP	2.7 kohm 1/10 W	J C20002726020	1
R53/R54	CHIP	51 kohm 1/10 W	J C20005136020	2
R55	CHIP	2.7 kohm 1/10 W	J C20002726020	1
R56/R57	CHIP	2.4 kohm 1/10 W	J C20002426020	2
R58	CHIP	3.9 kohm 1/10 W	J C20003926020	1
R59/R60	CHIP	27 kohm 1/10 W	J C20002736020	2
R61	CHIP	1 kohm 1/10 W	J C20001026020	1
R62	CHIP	3.3 kohm 1/10 W	J C20003326020	1
R63	CHIP	1 kohm 1/10 W	J C20001026020	1
R64	CHIP	3.3 kohm 1/10 W	J C20003326020	1
R65	METAL FILM	100 ohm 1/5 W	J C06001016P52	1
R67	CHIP	10 kohm 1/10 W	J C20001036020	1
R68	METAL FILM	680 ohm 1/5 W	J C06006816P52	1
R69	CHIP	2.2 Mohm 1/10 W	J C20002256020	1
R70-R74	CHIP	10 kohm 1/10 W	J C20001036020	5
R75-R77	CHIP	0 ohm 1/10 W	J C20000006020	3
R78	METAL FILM	390 ohm 1/5 W	J C06003916P52	1
J14	CHIP	0 ohm 1/10 W	J C20000006020	1
J41	CHIP	0 ohm 1/10 W	J C20000006020	1
J50	CHIP	0 ohm 1/10 W	J C20000006020	1
SEMI FIXED RESISTORS				
VR1	20K(B)-H	C54120311500	1	
VR2	100K(B)-H	C54110411500	1	
VR3	5K(B)-H	C54150211500	1	
VR4	100K(B)-H	C54110411500	1	
MISCELLANEOUS				
XT1	CRYSTAL, 7.2MHz	E8007200008	1	
XT2	CRYSTAL, 4.332MHz	E80043320005	1	
XT3	RESONATOR, CST4.00MGW-TF01	E8304000007	1	
FE1	FM FRONT END, FTA4-460V	E90044600010	1	
27	TERMINAL ANTENNA, SCREW TYPE	G59004045000	1	
PCB2 ASSEMBLY P.C. BOARD SPEAKER				
C10-C12	CAP, CERAMIC TUBULAR	0.005 μ F 50 V	Z D00547277353	3 D
C13/C14	CAP, MYLAR	0.047 μ F 100 V	J D02047306C06	2
CN109ST	CNT, LEAD ASSY, 2P, 240mm	L02102243711	1	
CP405ST	CNT, PLUG, 5267-02A	L10252670020	1	
R10-R13	RES, METAL FILM	22 ohm 1/5 W	J C06002206P52	4
17	TERMINAL SPEAKER, PUSH TYPE, 4P	G5940421000	1	
PCB3 ASSEMBLY P.C. BOARD POWER				
REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
C101	CAPACITORS	ELECTROLYTIC SG 10 μ F 50 V	M D04010008710	1
C102	ELECTROLYTIC HS	4700 μ F 50 V	M D04047208733	1

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
C103-C105	MYLAR	0.047 μ F 100 V	J D02047306C06	3
C106	ELECTROLYTIC HS	4700 μ F 50 V	M D04047208733	1
C107	MYLAR	0.047 μ F 100 V	J D02047306C06	1
C108	ELECTROLYTIC SG	2200 μ F 25 V	M D04022208420	1
C109	MYLAR	0.047 μ F 100 V	J D02047306C06	1
C110	ELECTROLYTIC SG	1 μ F 50 V	M D04001008710	1
C111	ELECTROLYTIC SG	2200 μ F 25 V	M D04022208420	1
C112	MYLAR	0.047 μ F 100 V	J D02047306C06	1
C113	ELECTROLYTIC SG	1 μ F 50 V	M D04001008710	1
C114	ELECTROLYTIC SG	1000 μ F 25 V	M D04010208420	1
C115	ELECTROLYTIC SG	1 μ F 50 V	M D04001008710	1
C116	ELECTROLYTIC SG	22 μ F 50 V	M D04022008710	1
C118/C119	MYLAR	0.047 μ F 100 V	J D02047306C06	2
C120	ELECTROLYTIC SG	47 μ F 16 V	M D04047008310	1
CONNECTORS				
CP100	PLUG AC, GS/CS-1301	L10402002000	1	
CP101	PLUG, JE20B1T4	L10820200042	1	PT INDO
CP102	PLUG, JE20A1T5	L10420200050	1	
CP103	PLUG, GIL-S-9P-S2T2	L10122009000	1	
CP104	PLUG, 5204-0910	L14052004090	1	
CP105	PLUG, 5267-03A	L10252670030	1	
CP106	PLUG, G1L-S-3P-S2TS	L10122003000	1	
CP107	PLUG, 5267-02A	L10252670020	1	
CP108	PLUG, 2P	L10233002000	1	
CN109	LEAD ASSY, 2P, 200mm	L02102203711	1	
CP109	PLUG, 5267-02A	L10252670020	1	
CN404	LEAD ASSY, 8P, 140mm	L02108143321	1	
DIODES				
D101	ZENER, UZ 4.3BSB	K06004R31452	1	
D102	SWITCHING, 1N4148M	K00041480152	1	
D103	ZENER, UZ 6.8BSB	K06006R81452	1	
D104	ZENER, UZ 27.0BSC	K06027002425	1	
D105	ZENER, UZ 4.3BSB	K06004R31452	1	
D106	BRIDGE, D55BA60	K04705600001	1	
D107-D110	RECTIFIER, 1N4003	K04040030052	4	
D113/D114	RECTIFIER, 1N4003	K04040030052	2	
D117	SWITCHING, 1N4148M	K00041480152	1	
FUSES				

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
R248	METAL FILM	560 ohm 1/5 W	J C06005616P52	1
R249	CARBON FILM	18 kohm 1/5 W	J C00001836P52	1
R250	CARBON FILM	15 kohm 1/5 W	J C00001536P52	1
R251	CARBON FILM	10 kohm 1/5 W	J C00001036P52	1 K,PT INDO
R252	CARBON FILM	15 kohm 1/5 W	J C00001536P52	1 K,PT INDO
R253	CARBON FILM	8.2 kohm 1/5 W	J C00008226P52	1 K,PT INDO
R254	METAL FILM	3.3 kohm 1/5 W	J C06003326P52	1 K,PT INDO
R255/R256	CARBON FILM	10 kohm 1/5 W	J C00001036P52	2 K,PT INDO
R257	METAL FILM	3.3 kohm 1/5 W	J C06003326P52	1 K,PT INDO
R258	CARBON FILM	15 kohm 1/5 W	J C00001536P52	1 K,PT INDO
R259	CARBON FILM	10 kohm 1/5 W	J C00001036P52	1 K,PT INDO
R260	CARBON FILM	15 kohm 1/5 W	J C00001536P52	1 K,PT INDO
R261	CARBON FILM	75 kohm 1/5 W	J C00007536P52	1 K,PT INDO
R262/R263	CARBON FILM	6.8 kohm 1/5 W	J C00006826P52	2 K,PT INDO
R264	CARBON FILM	75 kohm 1/5 W	J C00007536P52	1 K,PT INDO
R265	CARBON FILM	27 kohm 1/5 W	J C00002736P52	1 K,PT INDO
R266	METAL FILM	100 ohm 2 W	J C06001016652	1 K,PT INDO
R267	METAL FILM	4.7 kohm 1/5 W	J C06004726P52	1
R268	CARBON FILM	5.6 kohm 1/5 W	J C00005626P52	1
R269-R274	CARBON FILM	47 kohm 1/5 W	J C00004736P52	6
R275	CARBON FILM	680 kohm 1/5 W	J C00006846P52	1
R276	METAL FILM	470 ohm 1/5 W	J C06004716P52	1
R277	CARBON FILM	12 kohm 1/5 W	J C00001236P52	1
R278	CARBON FILM	10 kohm 1/5 W	J C00001036P52	1
R279	CARBON FILM	12 kohm 1/5 W	J C00001236P52	1 K,PT INDO
R280	CARBON FILM	120 kohm 1/5 W	J C00001246P52	1
R281	CARBON FILM	470 kohm 1/5 W	J C00004746P52	1
R282	CARBON FILM	5.6 kohm 1/5 W	J C00005626P52	1
R283	CARBON FILM	10 kohm 1/5 W	J C00001036P52	1
R284	CARBON FILM	100 kohm 1/5 W	J C00001046P52	1
R285	CARBON FILM	390 kohm 1/5 W	J C00003946P52	1
R286	CARBON FILM	5.6 kohm 1/5 W	J C00005626P52	1
R287	CARBON FILM	12 kohm 1/5 W	J C00001236P52	1
R288	CARBON FILM	68 kohm 1/5 W	J C00006836P52	1
R289	CARBON FILM	390 kohm 1/5 W	J C00003946P52	1
R290	CARBON FILM	5.6 kohm 1/5 W	J C00005626P52	1
R291	CARBON FILM	47 kohm 1/5 W	J C00004736P52	1
R292	CARBON FILM	68 kohm 1/5 W	J C00006836P52	1
R293	CARBON FILM	680 kohm 1/5 W	J C00006846P52	1
R294	CARBON FILM	5.6 kohm 1/5 W	J C00005626P52	1
R295	METAL FILM	330 ohm 1/5 W	J C06003316P52	1
R296	CARBON FILM	12 kohm 1/5 W	J C00001236P52	1
R297	CARBON FILM	120 kohm 1/5 W	J C00001246P52	1
R298	CARBON FILM	2.2 Mohm 1/5 W	J C00002256P52	1
R299	METAL FILM	330 ohm 1/5 W	J C06003316P52	1
R300	CARBON FILM	10 kohm 1/5 W	J C00001036P52	1
R301	CARBON FILM	1 Mohm 1/5 W	J C00001056P52	1
R302	CARBON FILM	10 kohm 1/5 W	J C00001036P52	1
R303	METAL FILM	1.8 kohm 1/5 W	J C06001826P52	1
R304	METAL FILM	5.6 kohm 1/5 W	J C06005626P52	1
R305	METAL FILM	1 kohm 1/5 W	J C06001026P52	1
R306	METAL FILM	1.5 kohm 1/5 W	J C06001526P52	1
R307	METAL FILM	1.8 kohm 1/5 W	J C06001826P52	1
R308	METAL FILM	2.4 kohm 1/5 W	J C06002426P52	1
R309	METAL FILM	1.8 kohm 1/5 W	J C06001826P52	1
R310	CARBON FILM	5.1 kohm 1/5 W	J C00005126P52	1
R311/R312	CARBON FILM	18 kohm 1/5 W	J C00001836P52	2
R313	METAL FILM	1 kohm 1/5 W	J C06001026P52	1
R314	METAL FILM	1.5 kohm 1/5 W	J C06001526P52	1
R315	METAL FILM	1.8 kohm 1/5 W	J C06001826P52	1
R316	METAL FILM	2.4 kohm 1/5 W	J C06002426P52	1
R317	CARBON FILM	18 kohm 1/5 W	J C00001836P52	1
R318	METAL FILM	56 ohm 1/5 W	J C060005606P52	1
MISCELLANEOUS				
RES0200	RESONATOR, CST10.0MTW-TF01	E8301000005	1	
RMC201	REMOTE SENSOR, TFMT5380(38kHz)	E94053800000	1	
SW200	SWITCH, SKHV10910D01 KB581, AUDIO	G18004050001	1 D	
SW201	SWITCH, SKHV10910D01 KB581, VIDEO	G18004050001	1 D	
SW202	SWITCH, SKHV10910D01 KB581, SURROUND	G18004050001	1	
SW203	SWITCH, SKHV10910D01 KB581, MODE	G18004050001	1	
SW204	SWITCH, SKHV10910D01 KB581, VOLUME-UP	G18004050001	1	
SW205	SWITCH, SKHV10910D01 KB581, VOLUME-DOWN	G18004050001	1	
SW206	SWITCH, SKHV10910D01 KB581, TUNE MODE	G18004050001	1	
SW207	SWITCH, SKHV10910D01 KB581, MEM/SET	G18004050001	1	
SW208	SWITCH, SKHV10910D01 KB581, POWER	G18004050001	1	
SW209	SWITCH, SKHV10910D01 KB581, X-BASS	G18004050001	1	
SW210	SWITCH, SKHV10910D01 KB581, DISP	G18004050001	1 D	
SW211	SWITCH, SKHV10910D01 KB581, PTY	G18004050001	1 D	
SW212	SWITCH, SKHV10910D01 KB581, AF	G18004050001	1 D	
SW213	SWITCH, SKHV10910D01 KB581, RDS	G18004050001	1 D	
SW214	SWITCH, SKHV10910D01 KB581	G18004050001	1	
SW215	SWITCH, SKHV10910D01 KB581, INPUT	G18004050001	1 K,PT INDO	
7(VR201)	VOLUME MIC, RK09K1130205-50KB	C45111530220	1	
9(VR202)	SWITCH, ROTARY ENCODER	C49004106001	1	
XT200	CRYSTAL, MX-38T (32.768kHz)	E80032768005	1	
FL	FL DISPLAY, 14BMV8R	K53000170001	1	
7(VR201)	VOLUME MIC, RK09K1130205-50KB	C45111530220	1	
9(VR202)	SWITCH, ROTARY ENCODER	C49004106001	1	
10	GUIDE HOLDER, FL	432004081101	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
PCB5: ASSEMBLY P.C BOARD KEY SWITCH				
R370	METAL FILM	1.8 kohm 1/5 W	J C06001826P52	1
R371	CARBON FILM	5.1 kohm 1/5 W	J C00005126P52	1
R372-R374	CARBON FILM	18 kohm 1/5 W	J C00001836P52	3
CN104	LEAD ASSY, 2P, 80mm	L02102082632	1	
SW370	SWITCH, SKHV10910D01 KB581, BAND	G18004050001	1	
SW371	SWITCH, SKHV10910D01 KB581, FM MODE	G18004050001	1	
SW372	SWITCH, SKHV10910D01 KB581, CLOCK	G18004050001	1	
SW373	SWITCH, SKHV10910D01 KB581, TIMER	G18004050001	1	

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
PCB6: ASSEMBLY P.C BOARD MIC				
D381	SWITCHING, 1N4148M	K00041480152	1	
R380	METAL FILM	3.3 kohm 1/5 W	J C06003326P52	1
R381	CARBON FILM	10 kohm 1/5 W	J C00001036P52	1
39(JACK380)	JACK , HTJ064-05B	G40204022193	1	
CP105	PLUG, GIL-S-4P-S2T2	L10122004000	1	

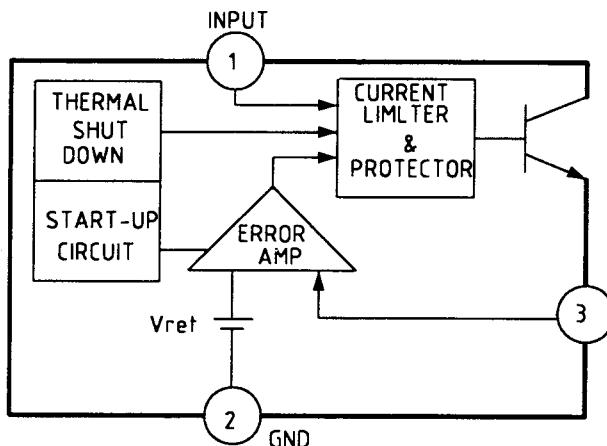
REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
PCB7: ASSEMBLY P.C BOARD MAIN				
C401	CAPACITORS			
C402/C403	CERAMIC TUBULAR	820 pF 50 V	J D00582107753	2
C404	CERAMIC TUBULAR	20 pF 50 V	J D00520006753	1
C405	CERAMIC TUBULAR	27 pF 50 V	J D00127006753	1
C406/C407	CERAMIC TUBULAR	3.3		

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
CP102	PLUG, TKCOV20X-A1	L10220002001	1	
CP101	SOCKET BTB, TKC-V10X-A1	L10210002001	1	
CN106	LEAD ASSY, 3P, 160mm	L02203163332	1	
CN504	LEAD ASSY, 4P, 200mm	L02204203332	1	
CP501	PLUG, 52004-1110	L14052004110	1	
CN401	LEAD ASSY, 5P, 160mm	L02205163332	1	
DIODES				
D501	SWITCHING, 1N4148M	K00041480152	1	
D502	ZENER, UZ 9.1BSC	K06009R12452	1	
INTEGRATED CIRCUITS				
IC 501	LC7821	J08078210000	1	
IC 502	KIA4559P/KIA75559P	J12145590001	1	
IC 503	TDA7313D	J08473130000	1	
IC 504	KIA4559P/KIA75559P	J12145590001	1	
IC505	KIA4559S/KIA75559S	J12145590000	1	
IC751	HYBRID, SRS3D2SW	J10032000000	1	
TRANSISTORS				
Q502L/R	KTC3198, NPN	J5023198B005	2	
Q504	KRA107M/DTA114YS	J601107M0005	1	
Q505	FET, 2SK117Y	J5441170Y005	1	
Q506	DTC114YS	J60201140005	1	
Q507	KRA107M/DTA114YS	J601107M0005	1	
Q508L/R	DTC323TL	J502323TL005	2	
RESISTORS				
R501L/R	METAL FILM	1 kohm 1/5 W	J C06001026P52	2
R502L/R	METAL FILM	3.3 kohm 1/5 W	J C06003326P52	2
R503-R505	METAL FILM	1 kohm 1/5 W	J C06001026P52	3
R508	CARBON FILM	100 kohm 1/5 W	J C00001046P52	2
R507/R508	METAL FILM	47 ohm 1/5 W	J C06004706P52	2
R509L/R	CARBON FILM	100 kohm 1/5 W	J C00001046P52	2
R510L/R	METAL FILM	3.3 kohm 1/5 W	J C06003326P52	2
R511L/R	CARBON FILM	470 kohm 1/5 W	J C00004746P52	2
R512	METAL FILM	47 ohm 1/5 W	J C06004706P52	1
R512L/R	METAL FILM	4.7 kohm 1/5 W	J C06004726P52	2
R513	METAL FILM	47 ohm 1/5 W	J C06004706P52	1
R514L/R	CARBON FILM	100 kohm 1/5 W	J C00001046P52	2
R515L/R	METAL FILM	1 kohm 1/5 W	J C06001026P52	2
R518/R519	METAL FILM	1 kohm 1/5 W	J C06001026P52	2
R520/R521	CARBON FILM	6.8 kohm 1/5 W	J C00006826P52	2
R522L/R	CARBON FILM	100 kohm 1/5 W	J C00001046P52	2
R523	METAL FILM	3.3 kohm 1/5 W	J C06003326P52	1
R524	CARBON FILM	1 Mohm 1/5 W	J C00001056P52	1
R525L/R	METAL FILM	1 kohm 1/5 W	J C06001026P52	2
R526L/R	CARBON FILM	5.6 kohm 1/5 W	J C00005626P52	2
R527L/R	CARBON FILM	100 kohm 1/5 W	J C00001046P52	2
R529L/R	METAL FILM	1 kohm 1/5 W	J C06001026P52	2
R530/R531	METAL FILM	47 ohm 1/5 W	J C06004706P52	2
R532L/R	CARBON FILM	10 kohm 1/5 W	J C00001036P52	2
R533L/R	CARBON FILM	100 kohm 1/5 W	J C00001046P52	2
R534L/R	CARBON FILM	10 kohm 1/5 W	J C00001036P52	2
R535L/R	METAL FILM	3.9 kohm 1/5 W	J C06003926P52	2
R536L/R	METAL FILM	10 ohm 1/5 W	J C06001006P52	2
R537/R538	METAL FILM	47 ohm 1/5 W	J C06004706P52	2
R539	METAL FILM	220 ohm 1/5 W	J C06002216P52	1
R540L/R	METAL FILM	4.7 kohm 1/5 W	J C06004726P52	2
R541	CARBON FILM	2.2 Mohm 1/5 W	J C00002256P52	1
R751L/R	CARBON FILM	220 kohm 1/5 W	J C00002246P52	2
R752L/R	CARBON FILM	100 kohm 1/5 W	J C00001046P52	2
R753L/R	METAL FILM	4.7 kohm 1/5 W	J C06004726P52	2
R754	METAL FILM	1 kohm 1/5 W	J C06001026P52	1
R754L/R	CARBON FILM	100 kohm 1/5 W	J C00001046P52	2
R755	METAL FILM	1 kohm 1/5 W	J C06001026P52	1
R756	CARBON FILM	620 ohm 1/5 W	J C00006216P52	1
MISCELLANEOUS				
26	GROUND PLAT	307004552601	1	
30	JACK RCA, 2P	G60120044001	1	
PCB⁹ ASSEMBLY P.C.BOARD HEADPHONE				
C542	CAP, CERAMIC TUBULAR	0.01 μ F 16 V	Z D00510377353	1
C535L/R	CAP, CERAMIC TUBULAR	0.022 μ F 25 V	Z D00522357453	2
C536	CAP, CERAMIC TUBULAR	0.022 μ F 25 V	Z D00522357453	1
CP504	CNT PLUG, GIL-04P-S2L2-EF		L10122004001	1
D504	SWITCHING, 1N4148M		K00041480152	1
R539L/R	RES, METAL FILM	4.7 ohm 1/5 W	J C0604R706P52	2
6	JACK , HTJ064-05B		G40204022193	1

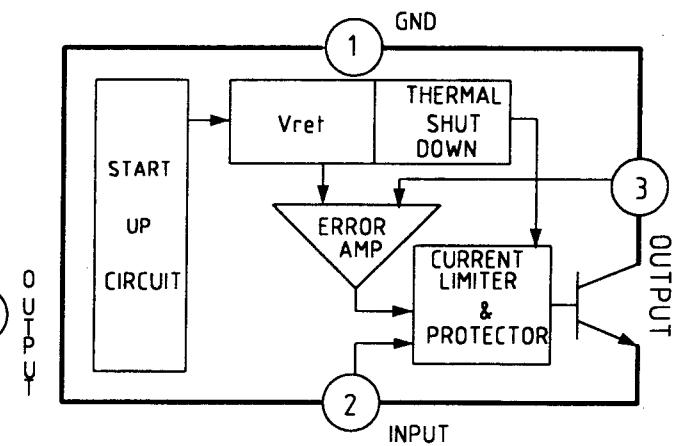
* OLD PART NO.

IC'S FUNCTIONAL BLOCK DIAGRAM

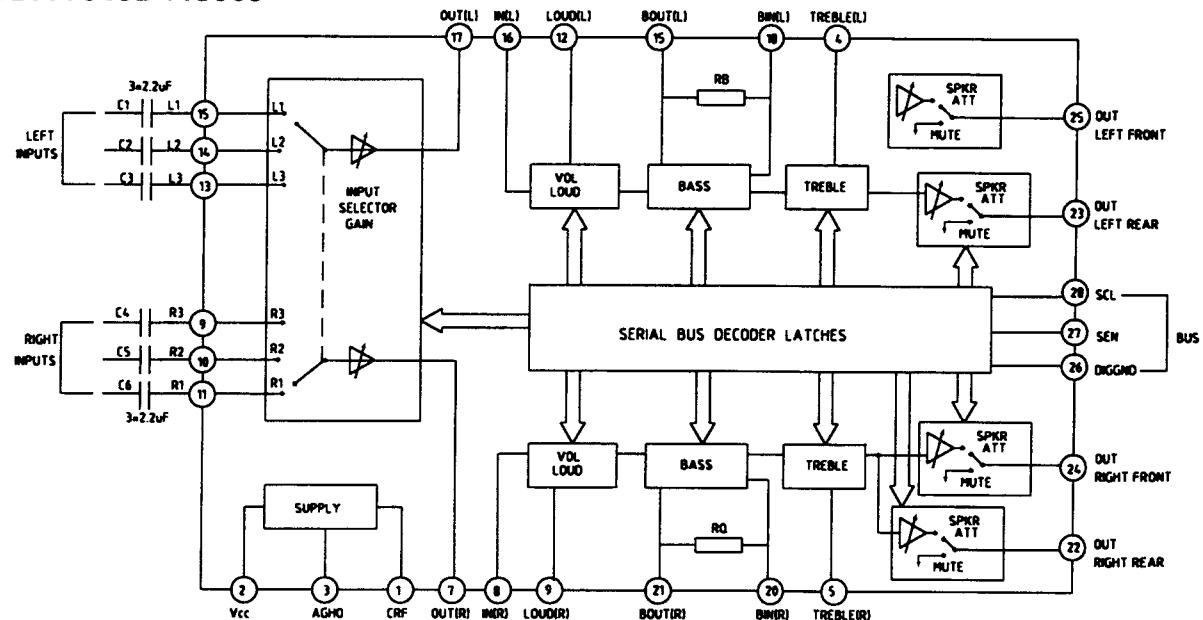
KIA 78012AP : IC102/IC103



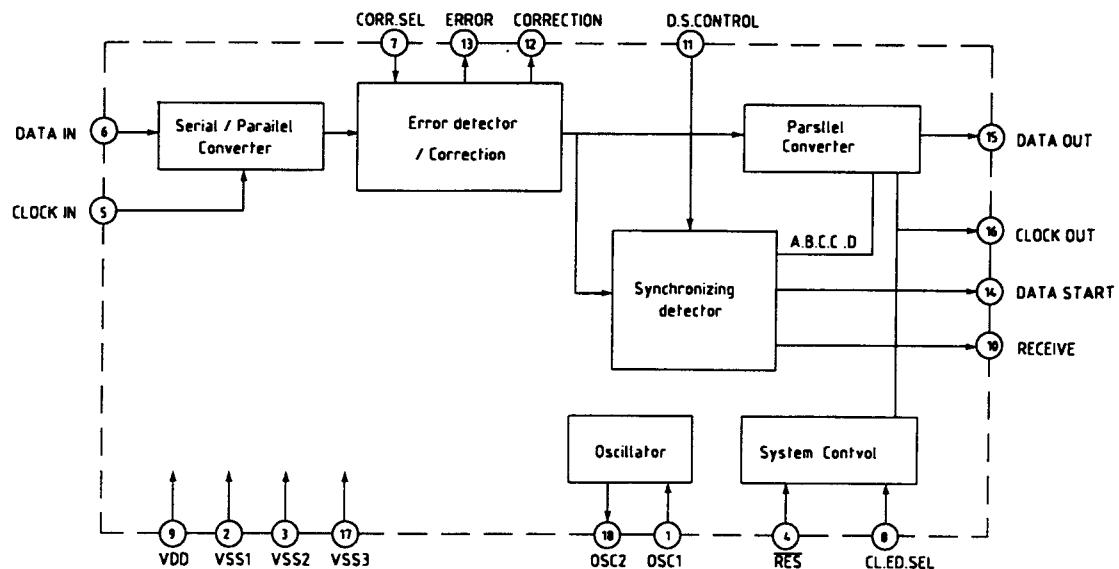
KA 7912 : IC101



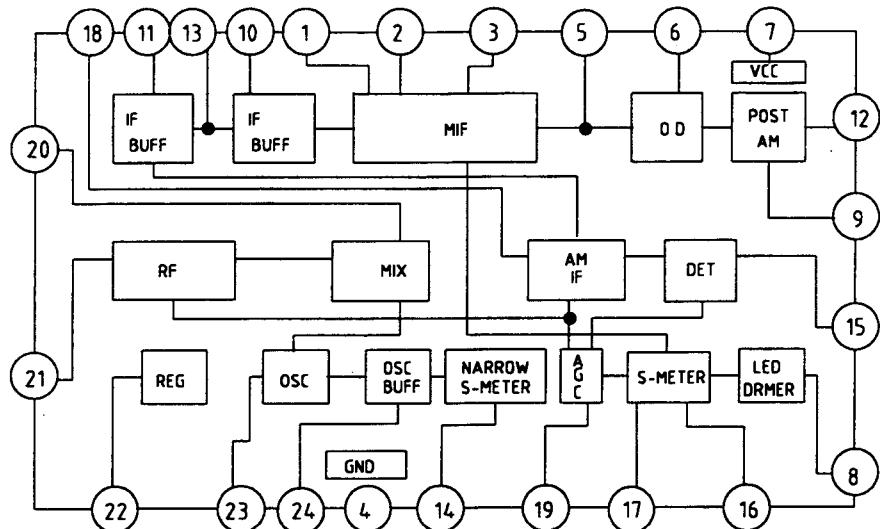
TDA 7313D : IC503



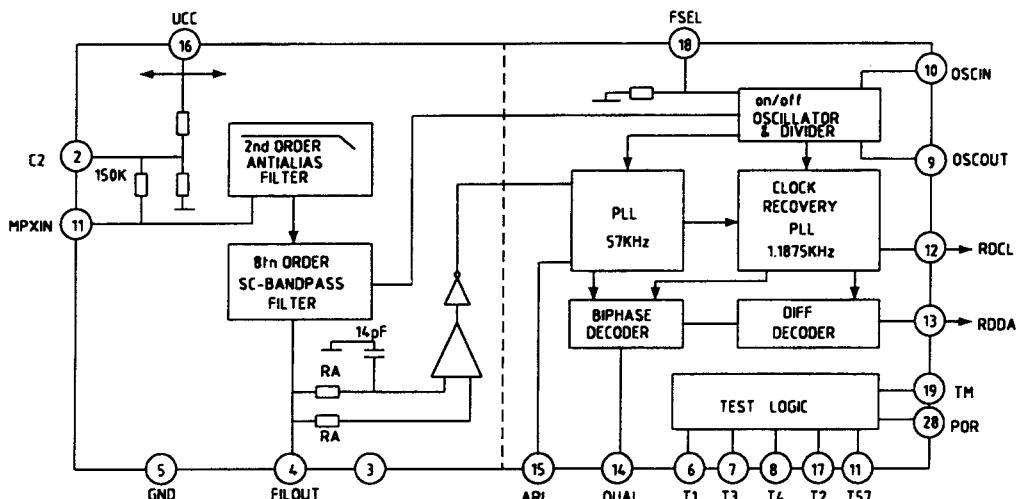
LC 7073 : IC5



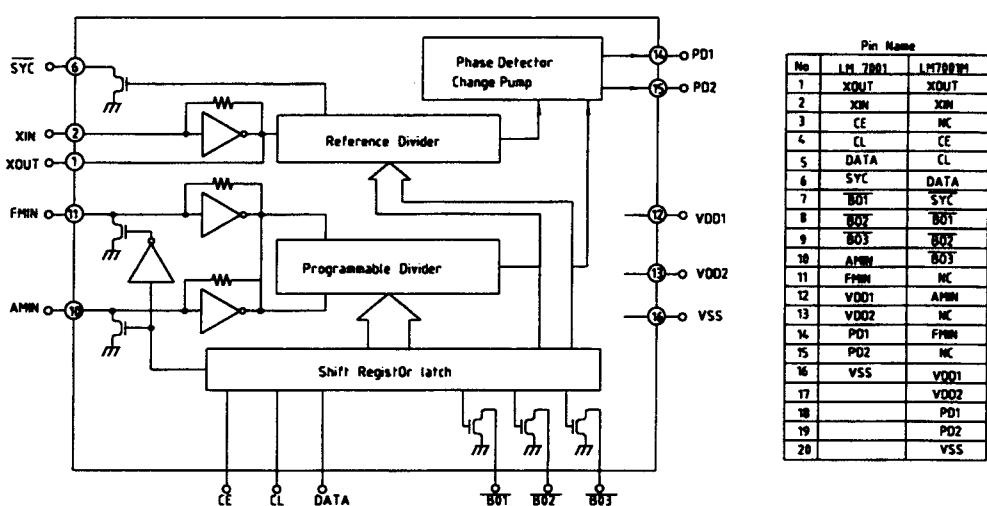
LA 1266 : IC2



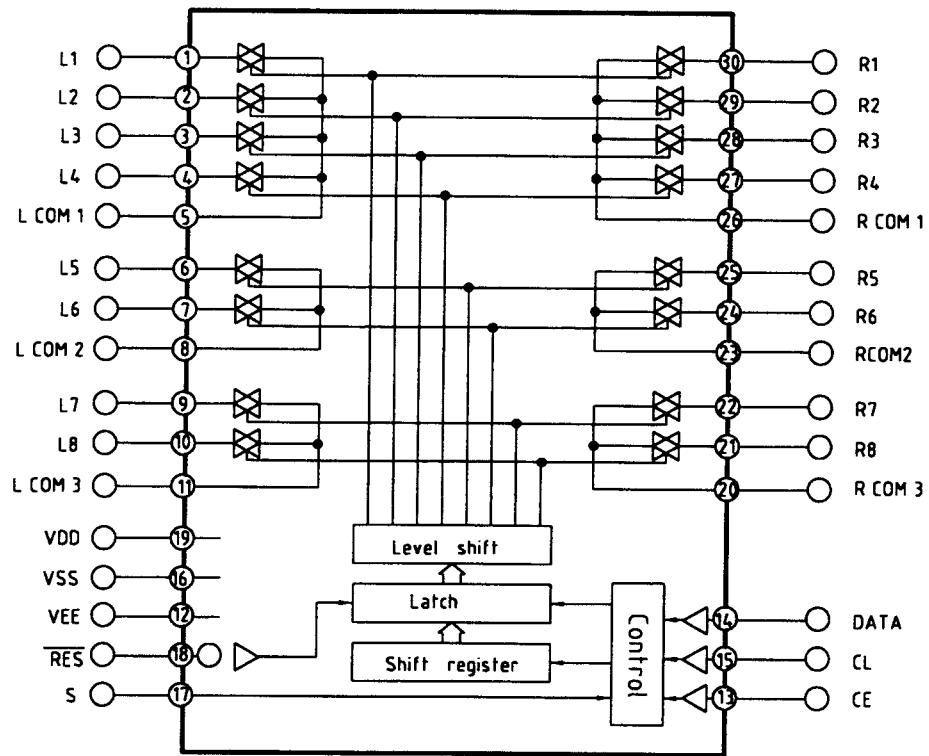
TDA 7330B : IC4



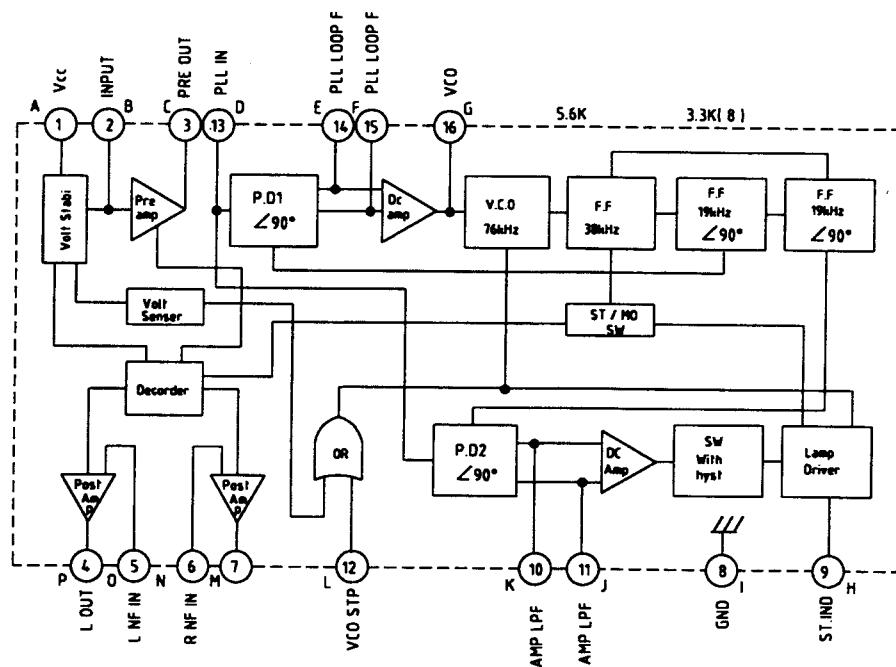
LM 7001 M : IC1



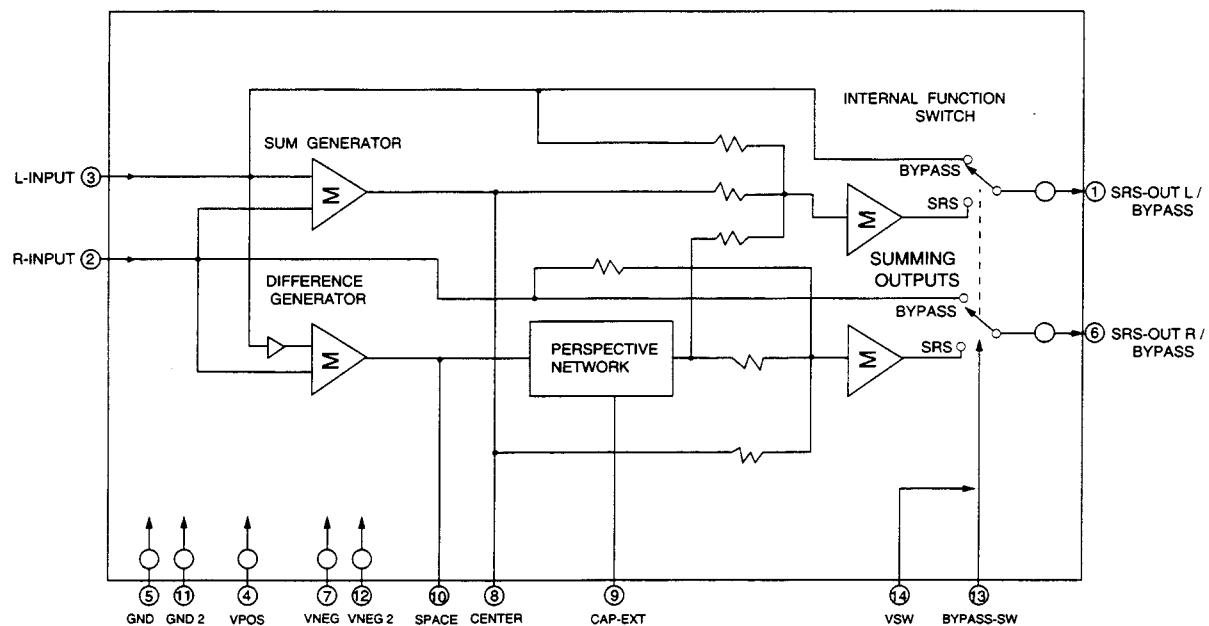
LC 7821 : IC501



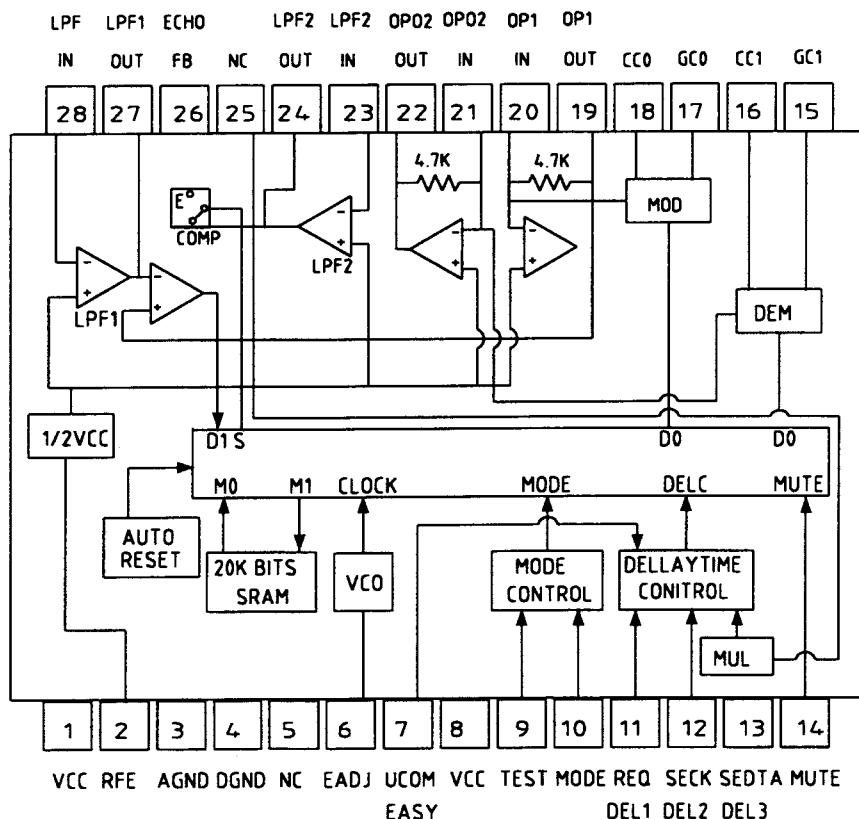
HA 12016 : IC3



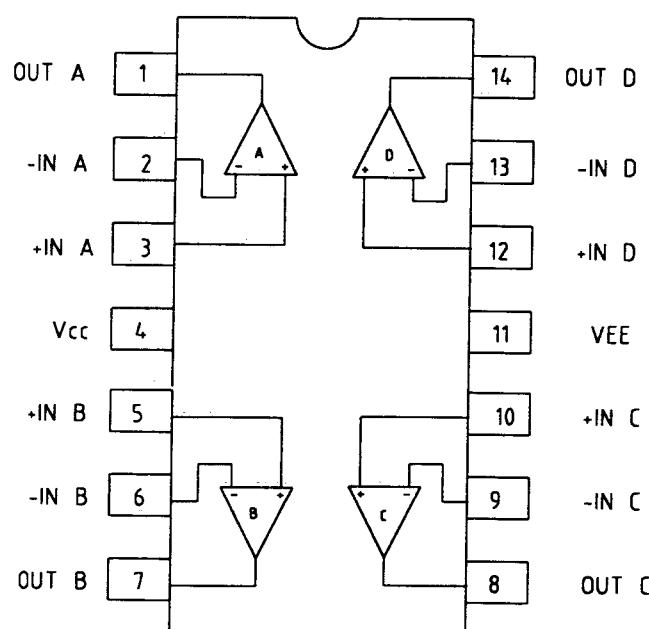
SRS 3D2 SW : IC751



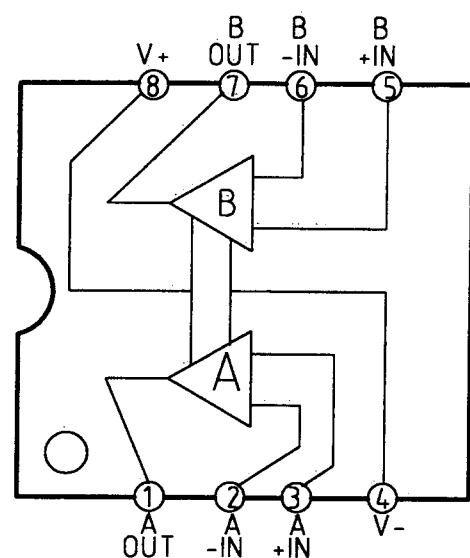
ES 56028 : IC201



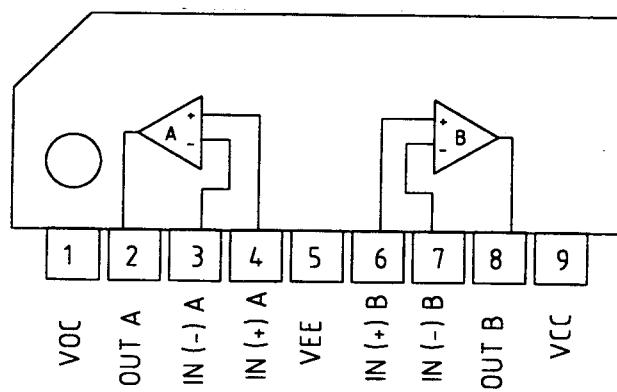
KA 324 : IC203



KIA 4559P : IC202, IC502, IC504

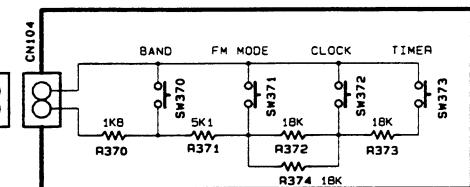
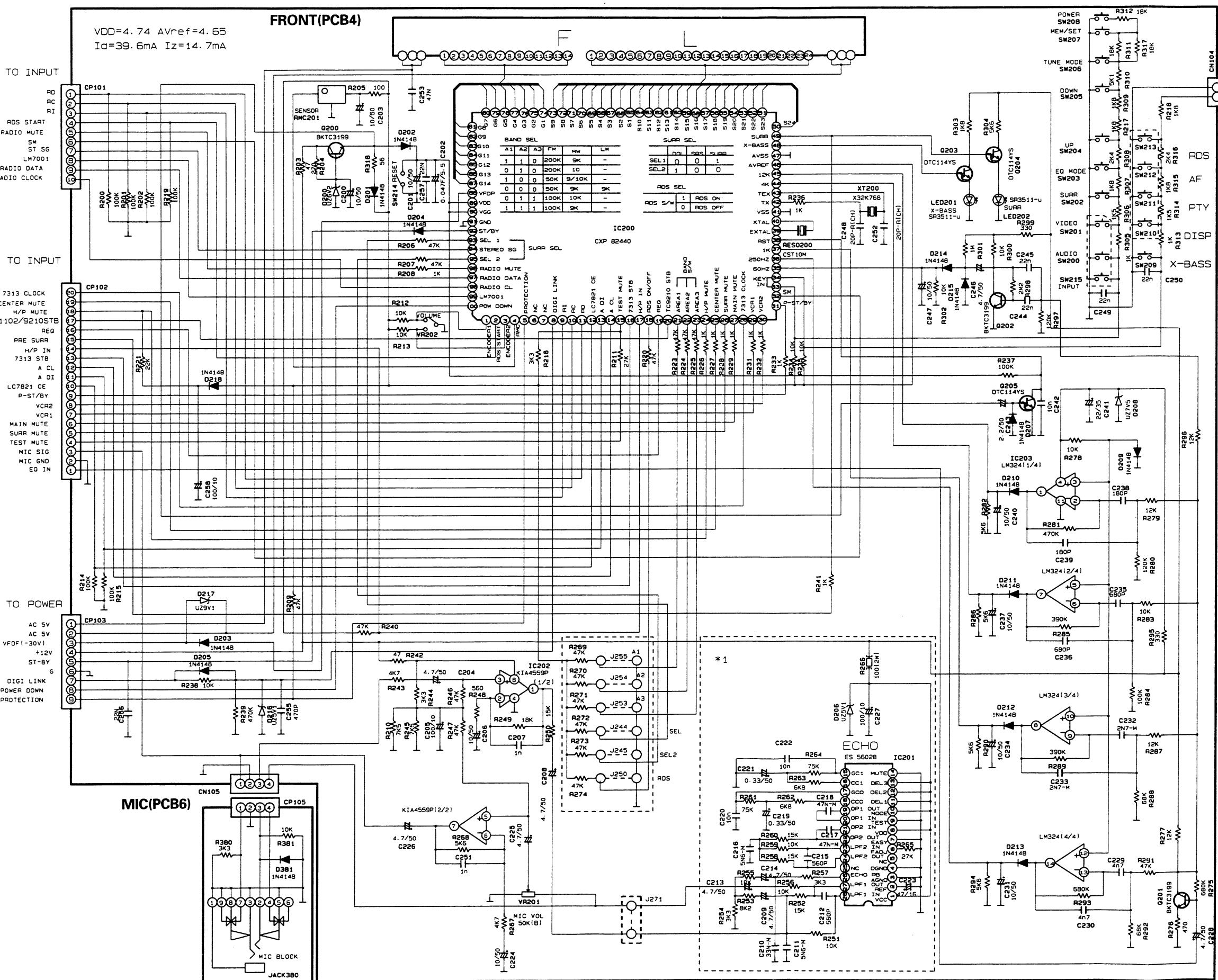


KIA 4559S : IC505



SCHEMATIC DIAGRAM (I)

Model No. : ATX-676



KEY (VIDEO)SEL

	ATX-676	AVT-686
SW200	X	O
SW201	X	O
SW215	C	X

RDS SEL

	RDS(0)	RDS(1)
J250	X	0
SW210	0	X
SW211	0	X
SW212	0	X
SW213	0	X

SURROUND SEL

	DOLBY	SRS	SURROU
J244	○	○	×
J245	×	○	○

*BAND SET *

FM	MW	LW	J255	J254	J253
200K	9K	-	X	X	0
200K	10K	-	0	X	0
50K	9/10	-	X	0	0
50K	9K	9K	0	0	0
100K	10K	-	0	X	X
100K	9K	-	X	X	X

ECHO SEL

	ECHO ON	ECHO OFF
*1	0	X
J271	X	0

NOTES

1. Resistor values are indicated in ohms unless otherwise specified
 $[k=1.000 \quad M=1.000.000]$
2. Capacitor values are indicated in microfarads unless otherwise specified.

[p=micro-microfarads]

Safety precaution to be followed during servicing

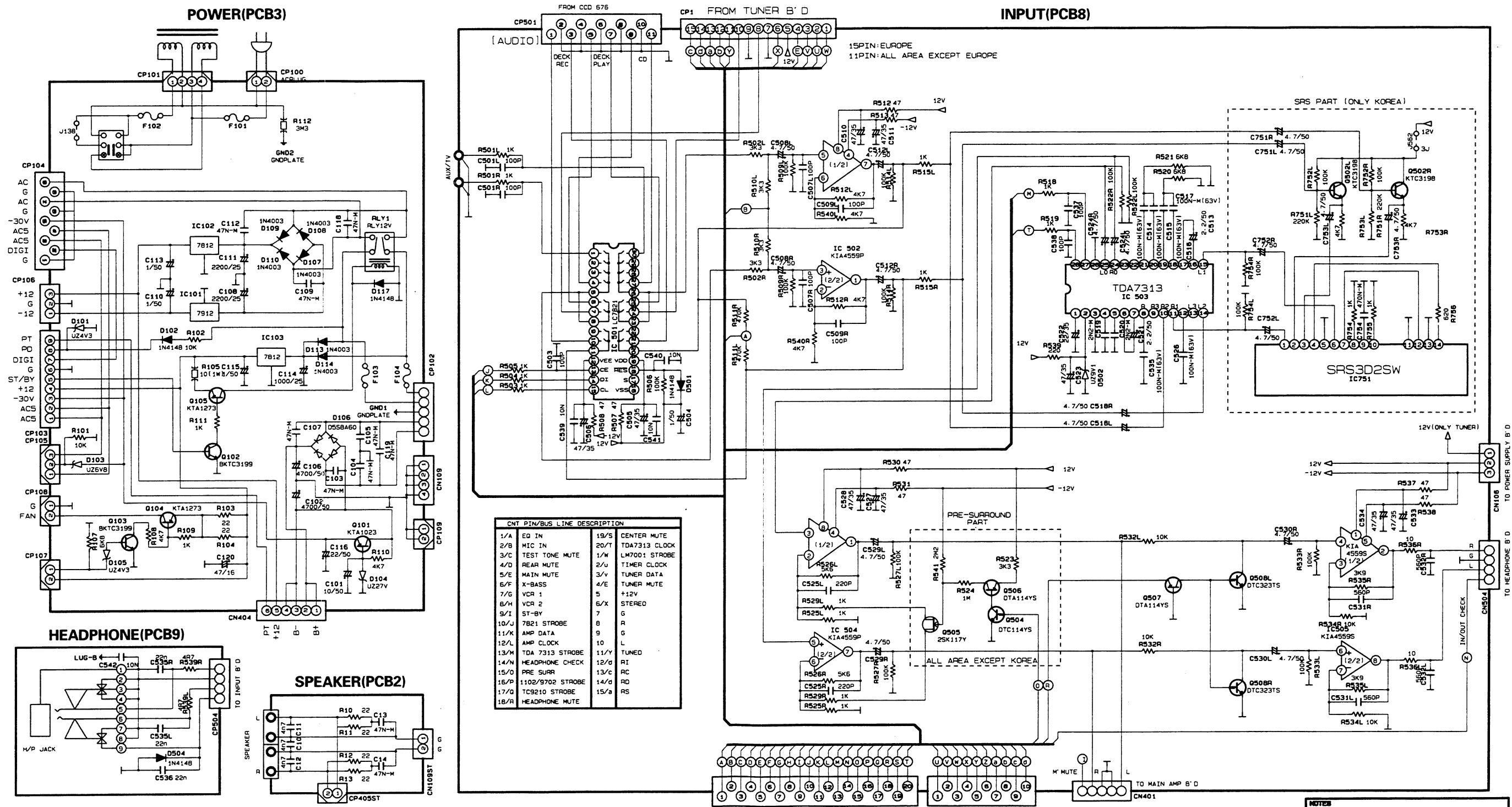
Divide these parts marked with  are critical parts for safety. use only the one described in the parts list.

parts list

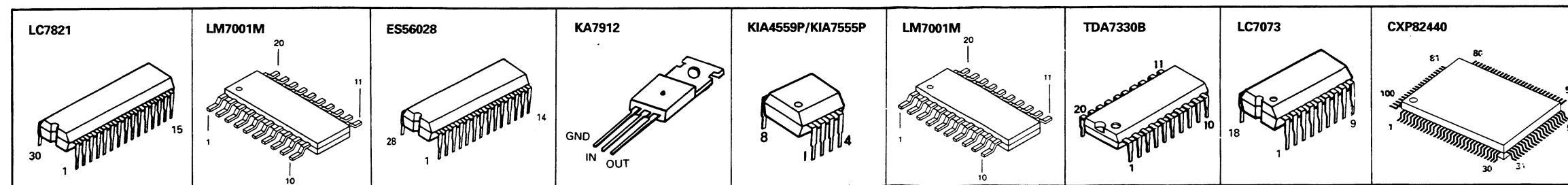
customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

SCHEMATIC DIAGRAM (II)

Model No. : ATX-676



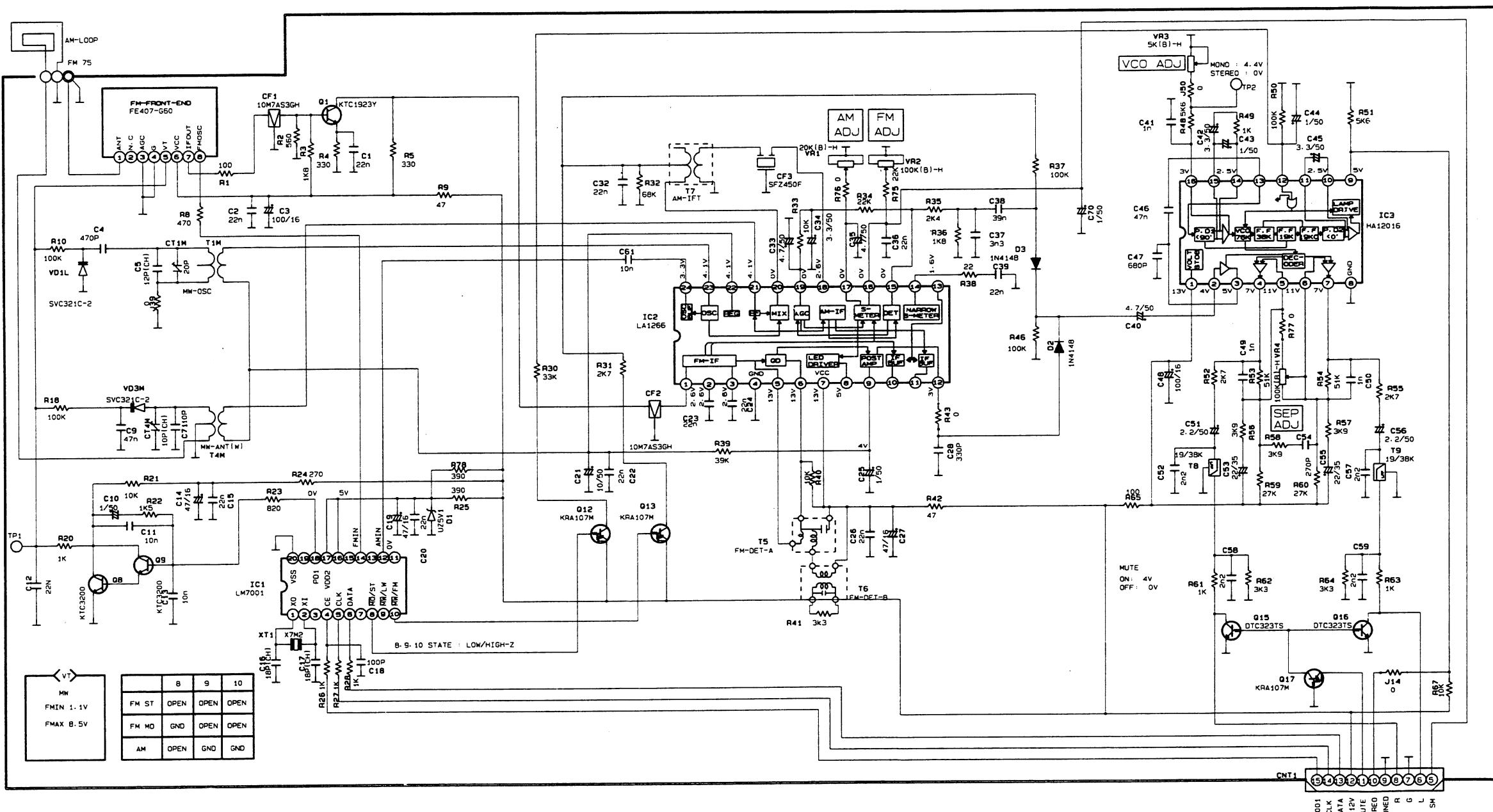
PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICS.



SCHEMATIC DIAGRAM (III)

Model No. : ATX-676

TUNER(PCB1) : A, K, PT INDO VERSION



PT	A. DOM
CF1	10M7A53GH
CF2	10M7A53GH
R35	2K4
R56	3K9
R57	3K9
R53	.51K
R54	51K
C49	1n
C50	1n
R39	39K
	16K

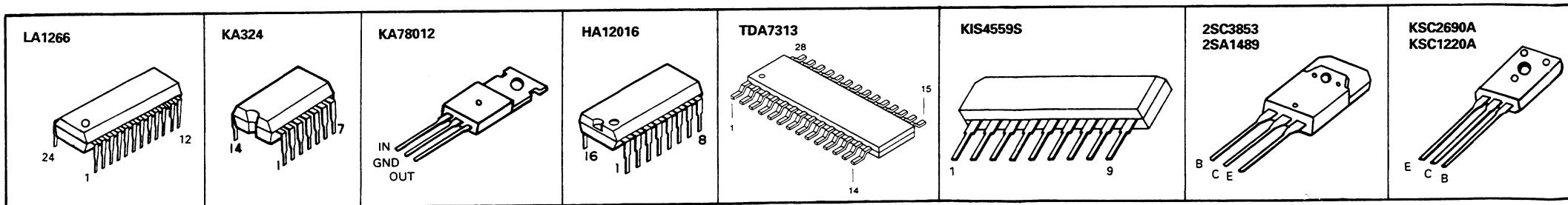
NOTES

1. Resistor values are indicated in ohms unless otherwise specified (K=1.000 M=1.000.000)
2. Capacitor values are indicated in microfarads unless otherwise specified. (p=micro-microfarads)

CAUTION

Safety precaution to be followed during servicing

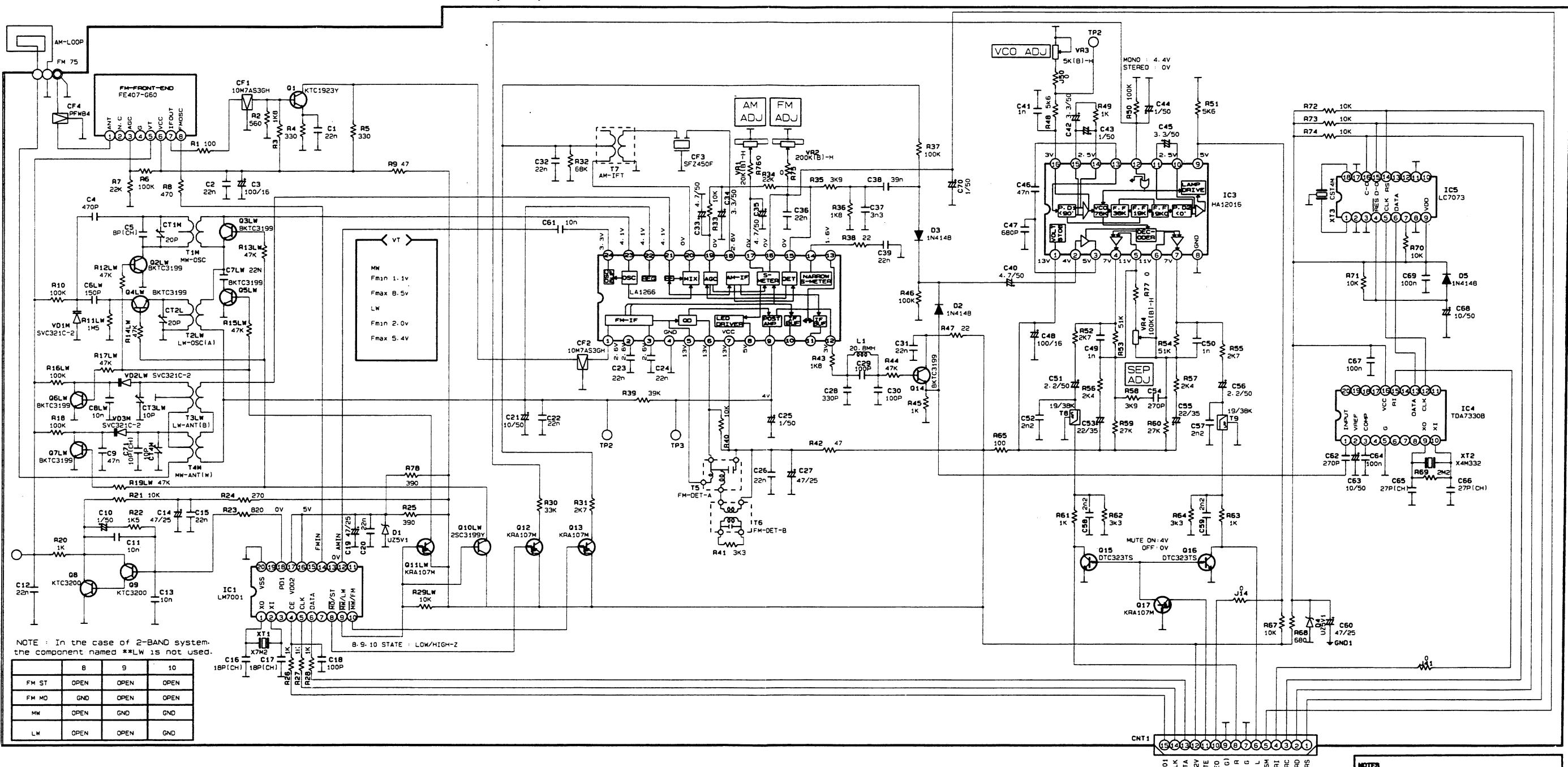
1. Since those parts marked with are critical parts for safety, use only the one described in the parts list
2. Before returning the set to the customer, make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.



SCHEMATIC DIAGRAM (IV)

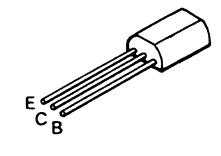
Model No. : ATX-676

TUNER(PCB1) : D VERSION ONLY



KTC2229/KTC3206

KTA949/KTA1024



DTA114YS
DTC114YS
DTC114YS
DTC323TL

KRA107M
DTC323TS
2SC3199Y
2SC1740
KTA1273

ZENER
IN4003
IN4148

D5SBA60

SR3511-Y

Cathode
Anode

KTC2240/KTC3200
KTC1923Y/KTC3198
KTC3198
BKTA1266
KTA1023

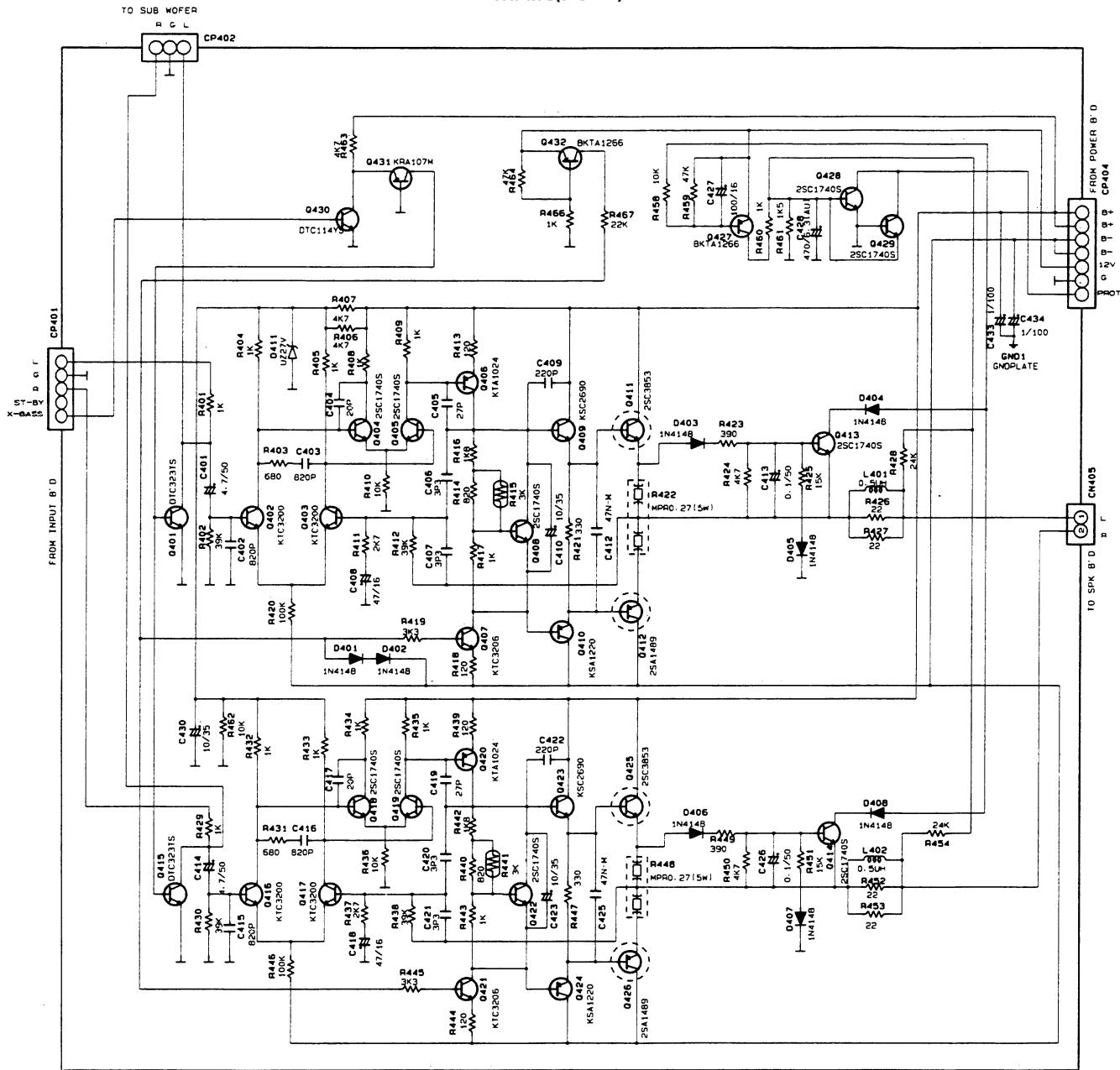
SVC321SPA-C

Cathode
Anode

SCHEMATIC DIAGRAM (V)

Model No. : ATX-676

MAIN(PCB7)



NOTE

1. Resistor values are indicated in ohms unless otherwise specified
 $[K=1.000 \quad M=1.000.000]$

2. Capacitor values are indicated in microfarads unless otherwise

spec

CAUTION
Safety precaution to be followed

Safety precautions to be followed during servicing

1) Since those parts marked with  are critical parts for safety, use only the one described in the parts list

2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

NOTE

CCD-676

LASER BEAM SAFETY PRECAUTIONS

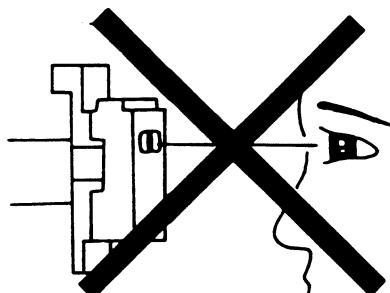
CLASS 1 LASER PRODUCT

**CLASS 1
LASER PRODUCT**

CAUTION

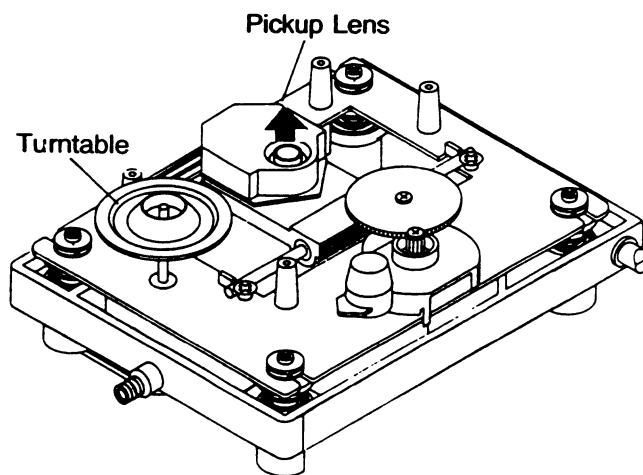
Invisible laser radiation when the unit is open. Do not stare the beam

CAUTION: USE OF ANY CONTROLS, ADJUSTMENT, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.



Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

This compact disc player uses a pickup that emits a laser beam. The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 1 foot away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.



CAUTION:

Using controls and adjustment, or doing procedures other than those specified herein, may result in hazardous radiation exposure.

SPECIFICATIONS

DECK SECTION

- DOLBY Level: 200 nWB/m, 400 Hz (A-BEX, TCC-130). · EQ FLAT
- REC/PB Level: 0 dB=200 nWB, 400 Hz.

Description		Unit	Nominal	Limit	Test Tape
Speed at Normal		Hz	3000	±30	A-BEX, TCC-112
Wow and Flutter WRMS (JIS) Average of 3 Times Check at BEG' MID/END of Tape.		%	0.13	0.12	A-BEX, TCC-112
DOLBY Test Point		mV	245	±25	A-BEX, TCC-130
REC/PB Level Calibration		dB	±0.7	±1	TDK, AC-225, AC514
Playback Frequency	250 Hz	dB		Within 3	120 us: A-BEX, TCC-162C 70 us: A-BEX, TCC-262C
	10 kHz	dB		Within 3	
	12.5 kHz	dB		Within 4	
REC/PB Frequency Response					NOR: TDK, AC-514, AC-225
DOLBY NR OFF	250 Hz	dB		Within 3	
	10 kHz	dB		Within 3	
	12.5 kHz	dB		Within 5	
DOLBY NR ON	250 Hz	dB		Within 3	
	10 kHz	dB		Within 3	
	12.5 kHz	dB		Within 5	
3rd Harmonic Distortion (0 dB)		%	2	2.5	NOR: TDK, AC-514
Total Harmonic Distortion (0 dB)		%	3	3.5	NOR: TDK, AC-514
Channel Crosstalk (B.P.F at 1 kHz)		dB	40	35	NOR: TDK, AC-514
Signal to Noise ratio (WTD)	DOLBY OFF	dB	43	41	NOR: TDK, AC-225, AC-514 DOLBY B NR Effect: 8.5 dB
	DOLBY B	dB	44	42	
Ratio (K3=3%)	WTD	DOLBY OFF	45	43	
		DOLBY B	54	52	
Erase Attenuation (B.P.F at 1 kHz, +10 dB Input)		dB	65	60	NOR: TDK, AC-514
Output Voltage (at Volume Level 19)		V	2	±0.4	A-BEK, TCC130

CD SECTION

- Test Disc: SONY YEDES7 or ABEX TCD784, TCD725
at DOLBY Tape (TCC-130), Speaker Output 2 V (Volume Level 19) · EQ FLAT

Description	Unit	Nominal
Signal to Noise ratio (WTD)	dB	65
Total harmonic Distortion	%	15
Frequency response (1 kHz=0 dB)	dB	±0,4
	dB	±1,5

ENVIRONMETAL

Test to specification

Temperature between 59°F (15°C) and 95°F (35°C) and relative humidity between 45% and 75%, with power supply voltage of 10% the normal supply voltage.

Test disc: SONY YEDES-7 or ABEX TCD784, TCD725.

Operation

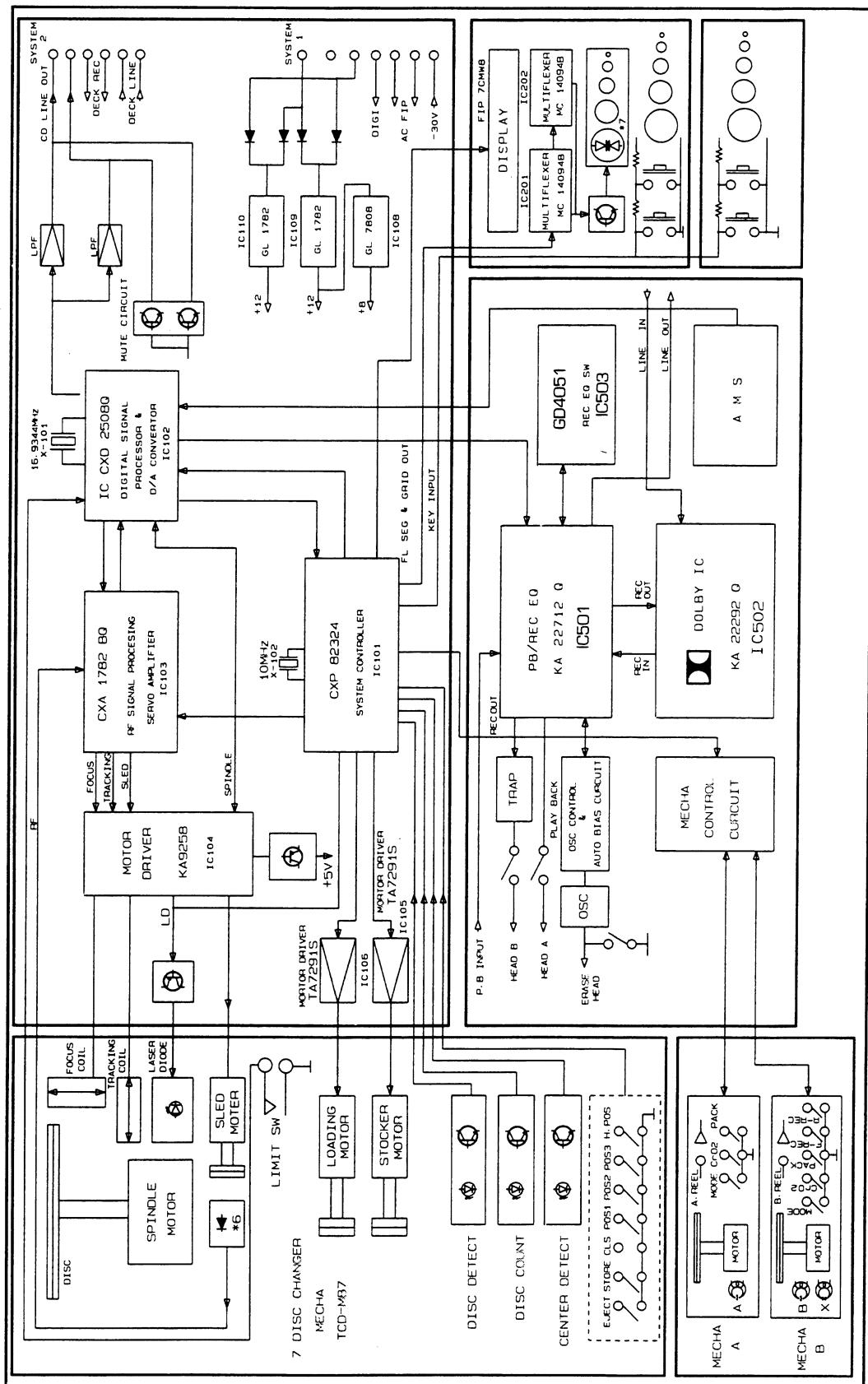
Unit must work properly and correctly at the temperature range from 32°F (0°C) to 113°F (45°C) and the relative humidity from 40% to 80%, and with the supply voltage.

Storage

Temperature test: 48 hours each at -40°F (-40°C) and 149°F (65°C), Humidity test: 40°C 95% relative humidity.

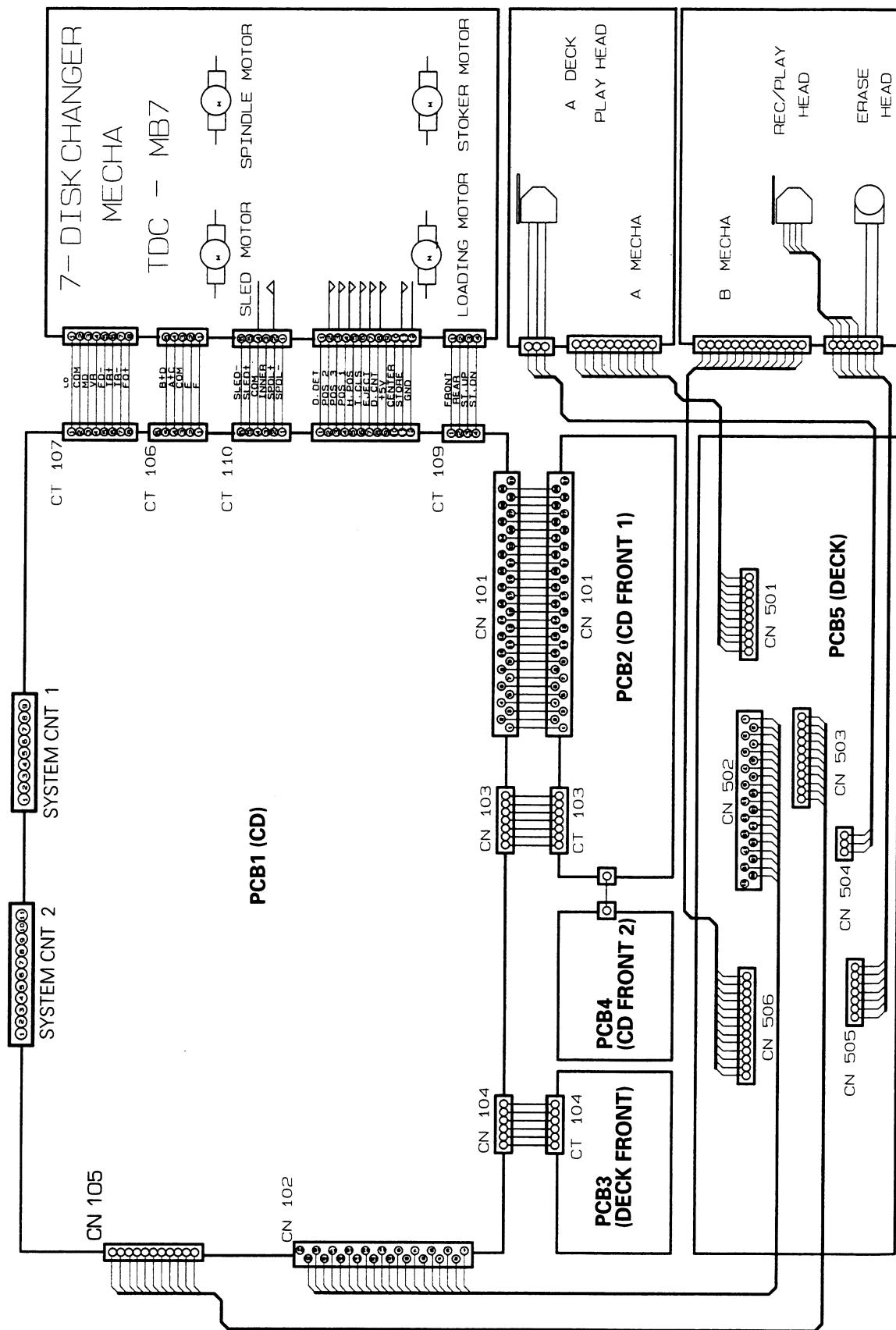
BLOCK DIAGRAM

Model No. : CCD-676



WIRING DIAGRAM

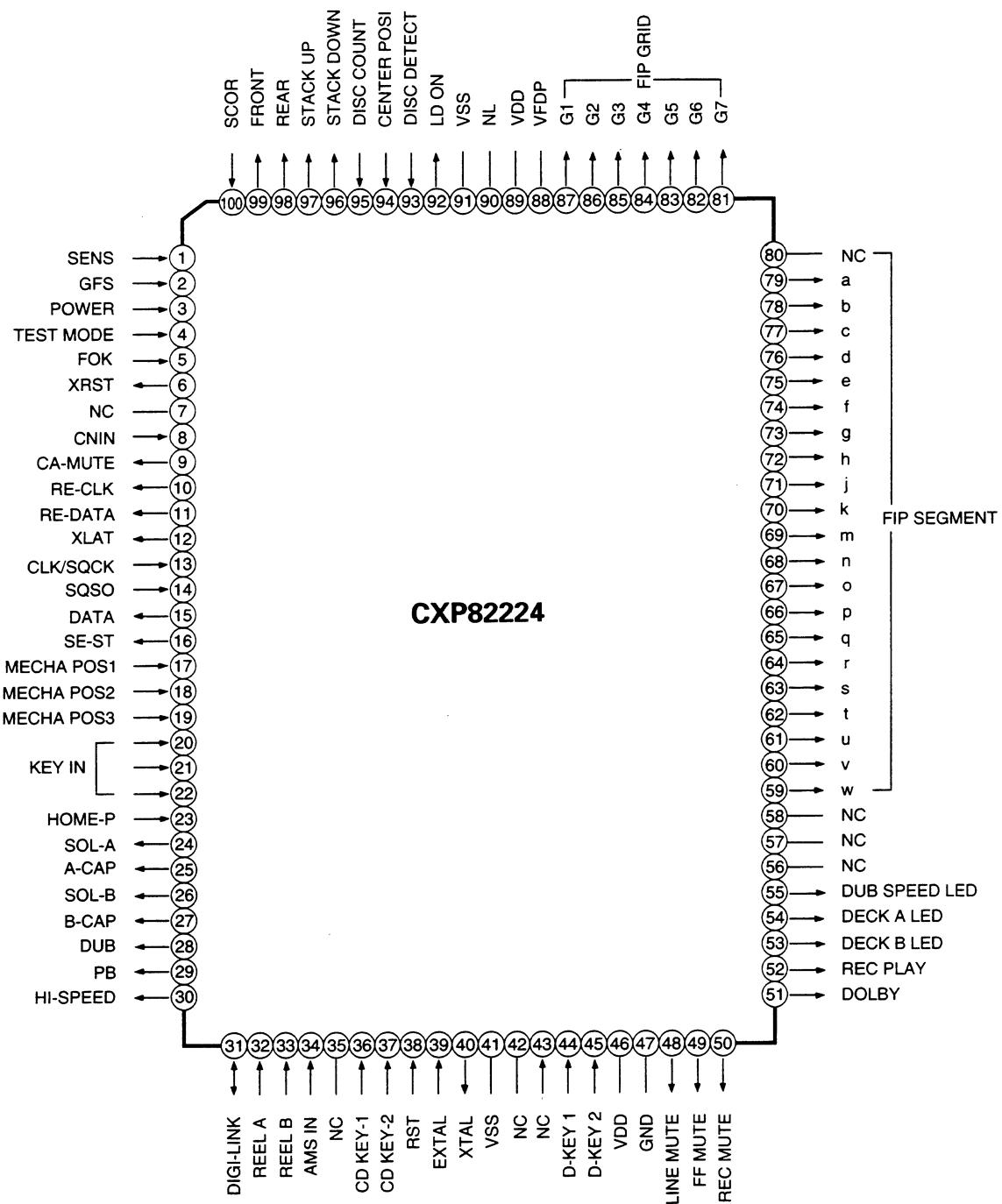
Model No. : CCD-676



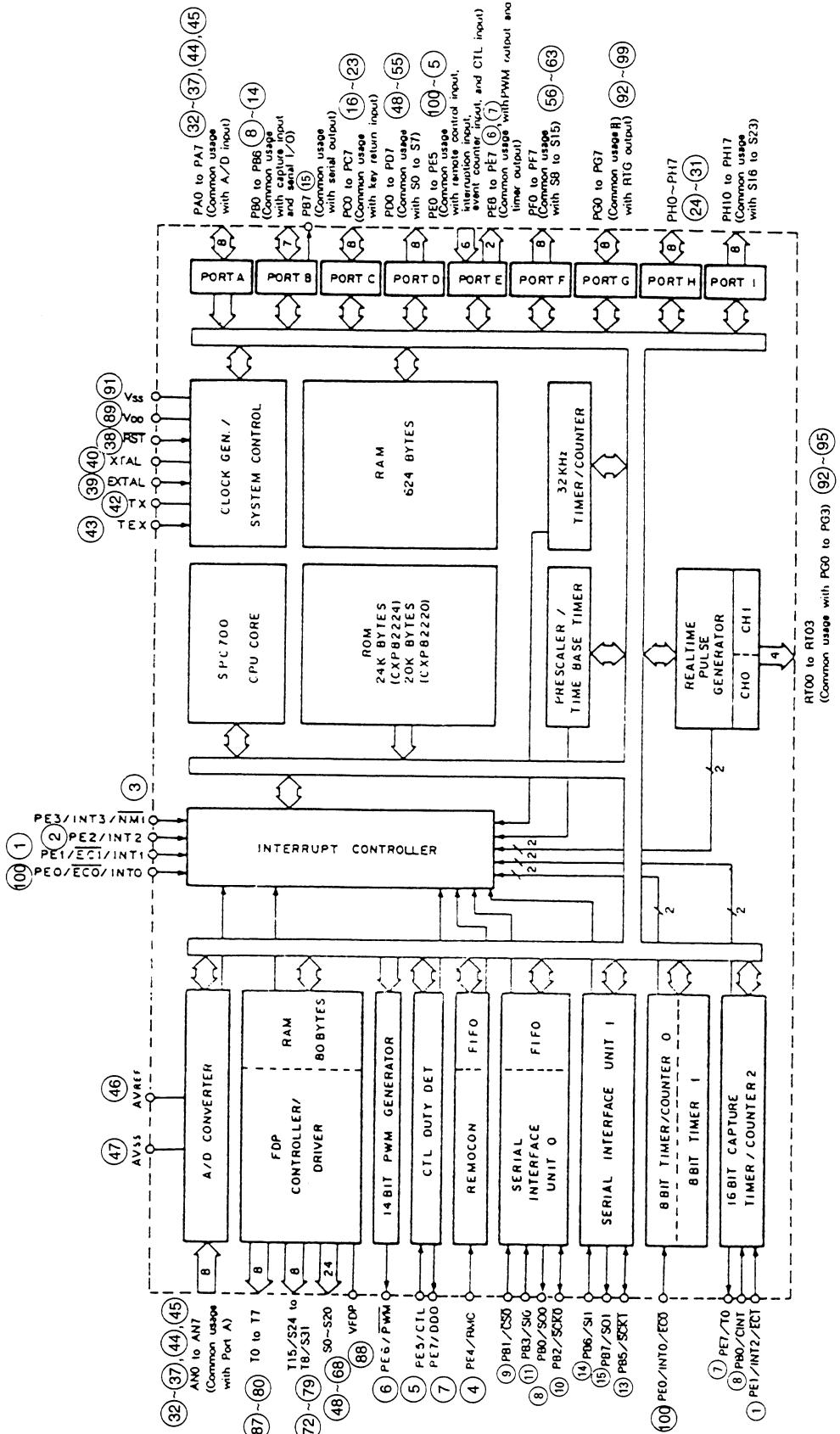
CIRCUIT DESCRIPTION

IC101 : CXP82224 CMOS 8-bit Single Chip Microcomputer.

1. Pin Configuration



2. Block Diagram



3. Input and Output terminal Functions

Pin No.	Symbol	Description
1	SENS	Sens input from CXD2508Q (pin7).
2	GFS	GFS input from CXD2508Q (pin51) during CD operation.
3	POWER	Self power key.
4	TEST MODE	Self power on test
5	FOK	Focus ok input from CXD2508Q (pin23).
6	XRST	Output for resetting CXD2508Q.(At "L", it is active)
7	NC	Not used !
8	CNIN	Input from C.out of CXA1782BQ (pin23).
9	CA-MUTE	Output for CD line mute.
10	RE-CLK	Shift resistor output (CLK) to MC14094B.
11	RE-DATA	Shift resistor output (DATA) to MC14094B.
12	XLAT	Serial latch data output to CXD2508Q (pin10).
13	CLK/SQCK	Clock data input for subcode-Q readout to CXD2508Q.
14	SQSO	Subcode-Q signal input form CXD2508Q.
15	DATA	Serial data output to CXD2508Q.
16	SE-ST	Shift resistor output (ST) to MC14094B.
17~19	1/2/3	Mechanism drive motor control input.
20~22	KEY-IN	Data input for key scan.
23	HOME-P	Input to detect the CD loaded on the pick-up.(At "H", it is active)
24	SOL-A	Output for driving the solenoid of Deck I.
25	A-CAP	Output for driving the capstan of Deck I.
26	SOL-B	Output for driving the solenoid of Deck II.
27	B-CAP	Output for driving the capstan of Deck II.
28	DUB	Output for dubbing.(Dubbing mode: "H", Play mode: "L")
29	PB	Output for playback.
30	HI-SPEED	Output to control the tape speed.(At "L", it is in the high speed dubbing mode)
31	DIGI-LINK	Input/Output for controlling digi-link.
32	REEL A	Input for detecting the reel pulse from Deck I.
33	REEL B	Input for detecting the reel pulse from Deck II.
34	AMS IN	Input for checking the balnk space during AMS (Atomatic Music Searching) (If on the blank space, then "H")
35	NC	Not used !
36	CD KEY-1	CD disc selection key A/D input.
37	CD KEY-2	CD operation key A/D input.
38	RST	Input to reset u-com.
39/40	EXTAL/XTAL	Input/Output for crystal oscillator.
41	VSS	This pin provides the ground potential.
42/43	NC	Not used !
44/45	D-KEY 1/2	Data input for key scan.
46	VDD	+5V power supply for CPU.
47	GND	Ground

Pin No.	Symbol	Description
48	LINE MUTE	Output for muting the line output. Except play or recoding (dubbing), Output is "H".
49	FF MUTE	Output for muting line output FF or REW.(If FF or REW, then "H")
50	REC MUTE	Output for muting recoding. (If recoding, then "L")
51	DOLBY	Output to select DOLBY NR or not.(DOLBY NR on: "L", off: "H")
52	REC PLAY	Output for controlling the record.
53	DECK B LED	Output for lighting on the LED at deck mode.(If deck play, then "H")
54	DECK A LED	Output for lighting on the LED at deck mode.(If deck play, then "H")
55	DUB SPEED LED	Output for lighting on the LED at high dubbing mode. (If high dubbing, then "H")
56~58	NC	Not used !
59~79	a~h,j,k,m,n,o,w	Output for FIP segment.
80	NC	Not used !
81~87	G7~G1	Output for FIP grid.
88	V _{FDP}	-30V power supply for FIP.
89	VDD	+5V power supply for CPU.
90	NC	Not used !
91	Vss	Ground
92	LD-ON	LD-ON signal output to pick-up unit.
93	DISC DETECT	Input to detect the CD being pulled out from the mechanism.
94	CENTER POSI	Input to detect the center position.
95	DISC COUNT	Input to detect the disc count.
96	STACK DOWN	Stack motor down drive output.
97	STACK UP	Stack motor up drive output.
98	REAR	Loading motor rear drive output.
99	FRONT	Loading motor front drive output.
100	SCOR	Subcode sync input from CXD2508Q (pin1) during CD operation.

ALIGNMENT PROCEDURES

DECK PART

Before Measurements and Adjustments

The following general conditions apply to the electrical measurements and adjustments unless especially stated otherwise.

- Dolby NR switch off.

1. Test Tape

- TCC -154 Azimuth (12.5 kHz, -24 dB)
- TCC -112 Tape Speed (3 kHz, -10 dB)
- TCC -130 Playback Level (Dolby Ref. Tape, 400 Hz, 0 dB)
- TCC -185C Playback frequency response
- Reference Tape TDK, AC-225, AC-514

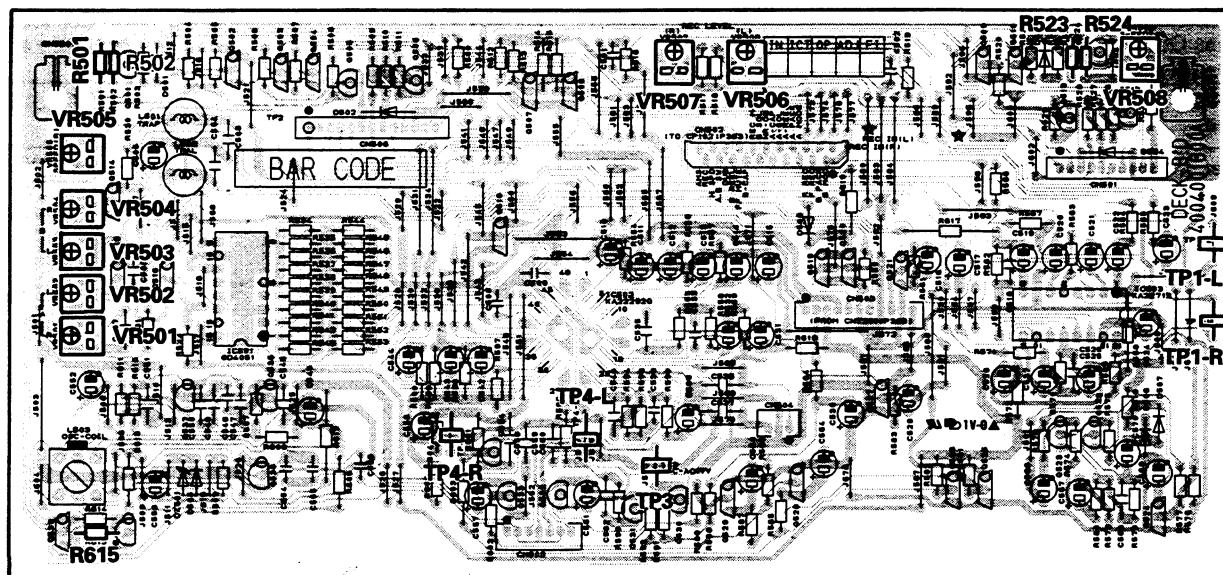
2. Instrument required

- Audio frequency oscillator
- ACVM or dual channel, mV-meter
- Wow/Flutter meter
- Oscilloscope

3. Test Reference

Point : TP1-L/R (Dolby T/P)

Level : 245 mV (TCC-130 Play)



4. Playback section

Adjustments	Test tape	Mode	Apply Signal to	Measure on	Read on	Adjust with	Adjust to		
Head Azimuth	TCC-154 12.5 kHz (A.BEX)	FWD Play (1 & 2 Deck)	TP2 : GND	AC mV-meter Oscilloscope	Adjusting a left screw of head	Max Lissajous wave from become a straight line with an angle 45 degrees			
		REW (2 Deck)							
Playback Speed at normal	TCC-112 3 kHz -10 dB (A.Bex)	Play (1 & 2 Deck)		Wow and Flutter Meter	1 Deck : VR508 2 Deck : VR505	3000 Hz \pm 30 Hz			
Playback at high-speed	TCC-112 3kHz -10dB (A. Bex)	TP(TP1-L/R)			1(R523, R524) 2(R501, R502)	4400 Hz \pm 45 Hz			
Playback Level	TCC-130 400 Hz, 0 dB (A. Bex)			AC mV-meter	1 Deck : VR501, VR502 2 Deck : VR503, VR504	245 mV (Dolby TP)			
Playback frequency response	TCC-185C 12.5 kHz, 1 kHz, 60 Hz (A.Bex)	AC mV-meter			See graph Figure 9 freq. response				

5. Recording section

Adjustments	Test tape	Mode	Apply Signal to	Measure on	Read on	Adjust with	Adjust to
Bias OSC Frequency	AC-225 (TDK)	Rec/Pause	400 Hz 400 mV Video	TP3	Frequency Counter	R615	105KHZ \pm 400HZ
Target value Bias	AC-225 (TDK)	Rec/Pause		TP3	AC mV-meter	R615	AC 17V \pm 1V
Recording Level	AC-225 (TDK)	Rec/Pause		TP4-L/R		VR506, VR507	AC 320mV

Note :

- *a. Prior to any measurement or adjustment with the tape running, heads and tape guides should be degaussed and cleaned. Reference below the figure.
- *b. The maximum permissible speed variation $\pm 1.0\%$. Moreover the Wow and Flutter can be read. This value on line out be exceed 0.2%
- *c. The voltage on line out shoule be $400\text{mV} \pm 20\text{mV}$. If not, it reduce the LF signal (bias disabled) as many as the reading was too low or too high by VR503/504, VR501/502.
- *d. When the channel is adjsted, this may slightly affect the adjtment of the other channel. If the adjustment is correct, the frequency response curve will be similar to curve b in figuer 1, distortion below 3%.

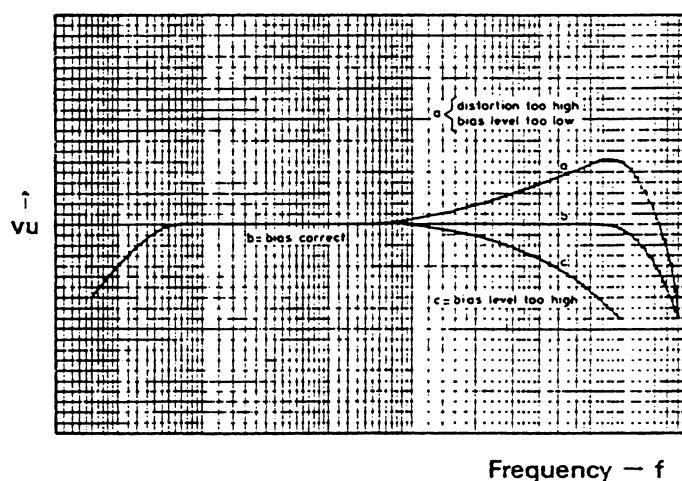
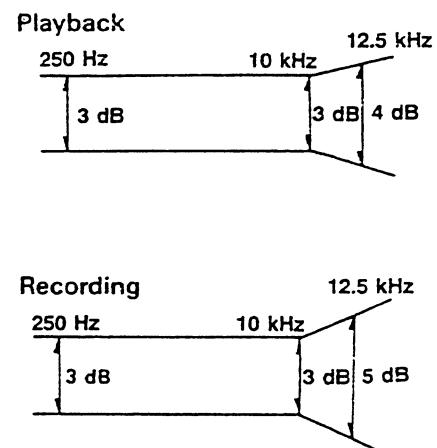


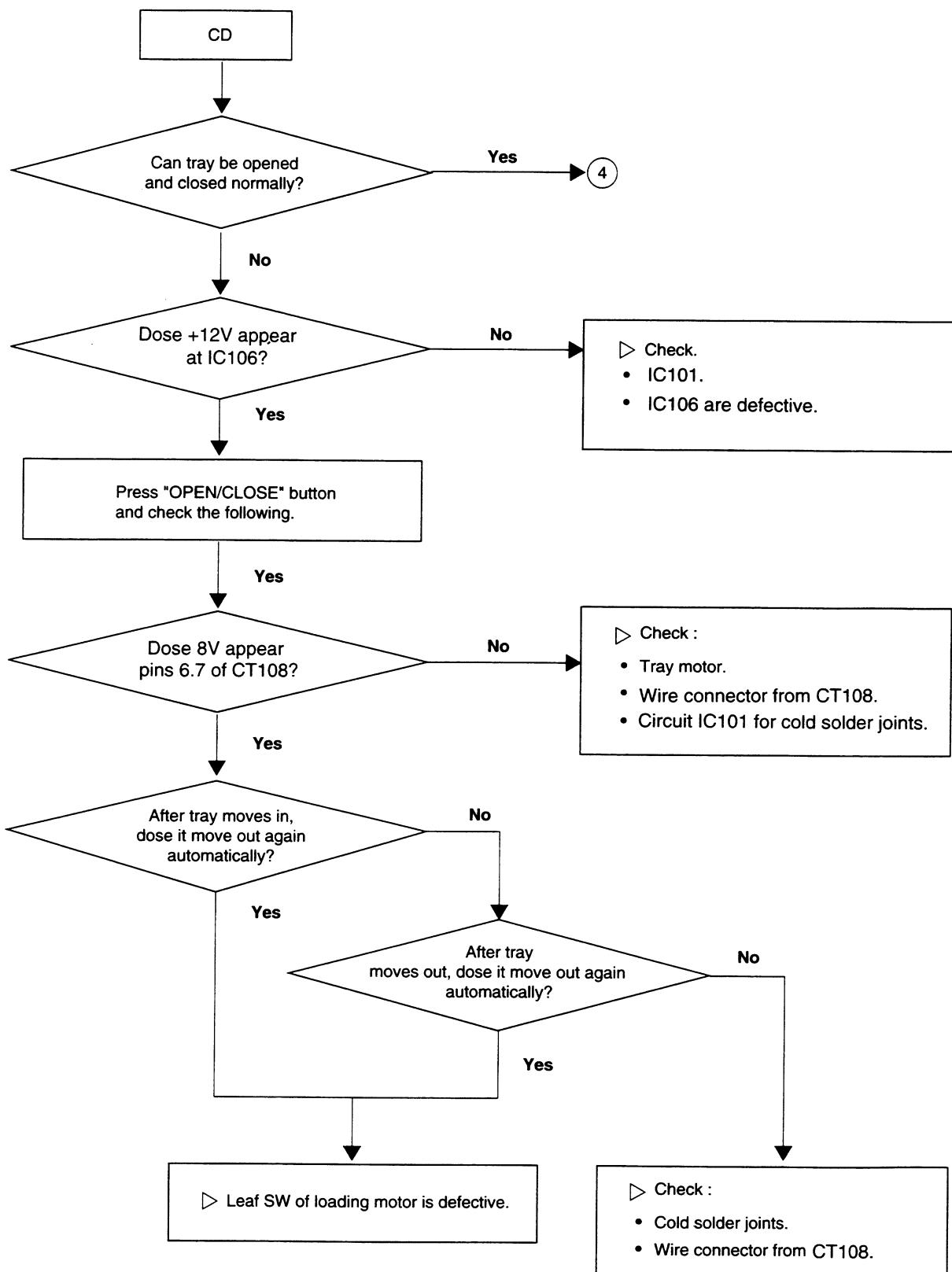
Figure 1

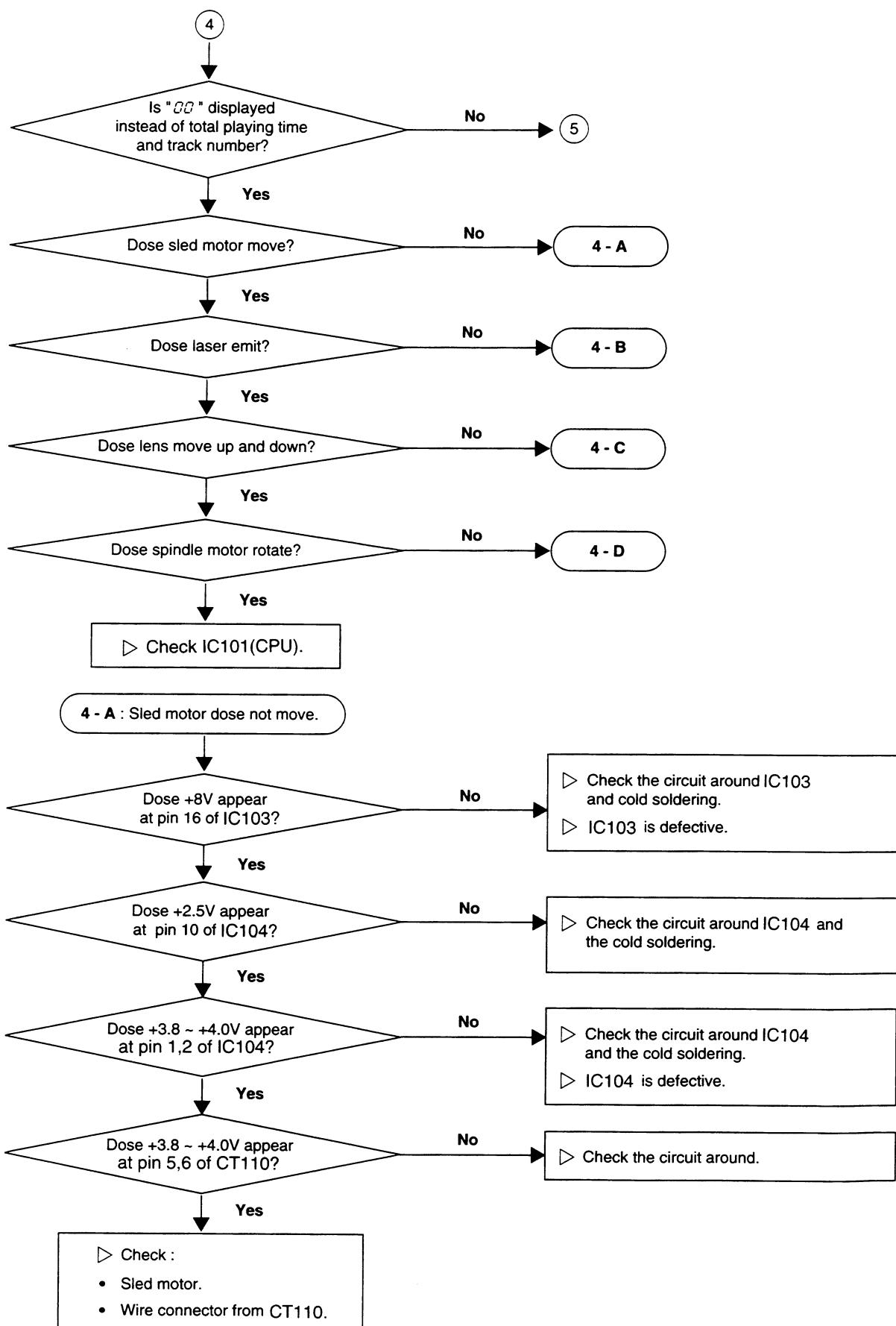


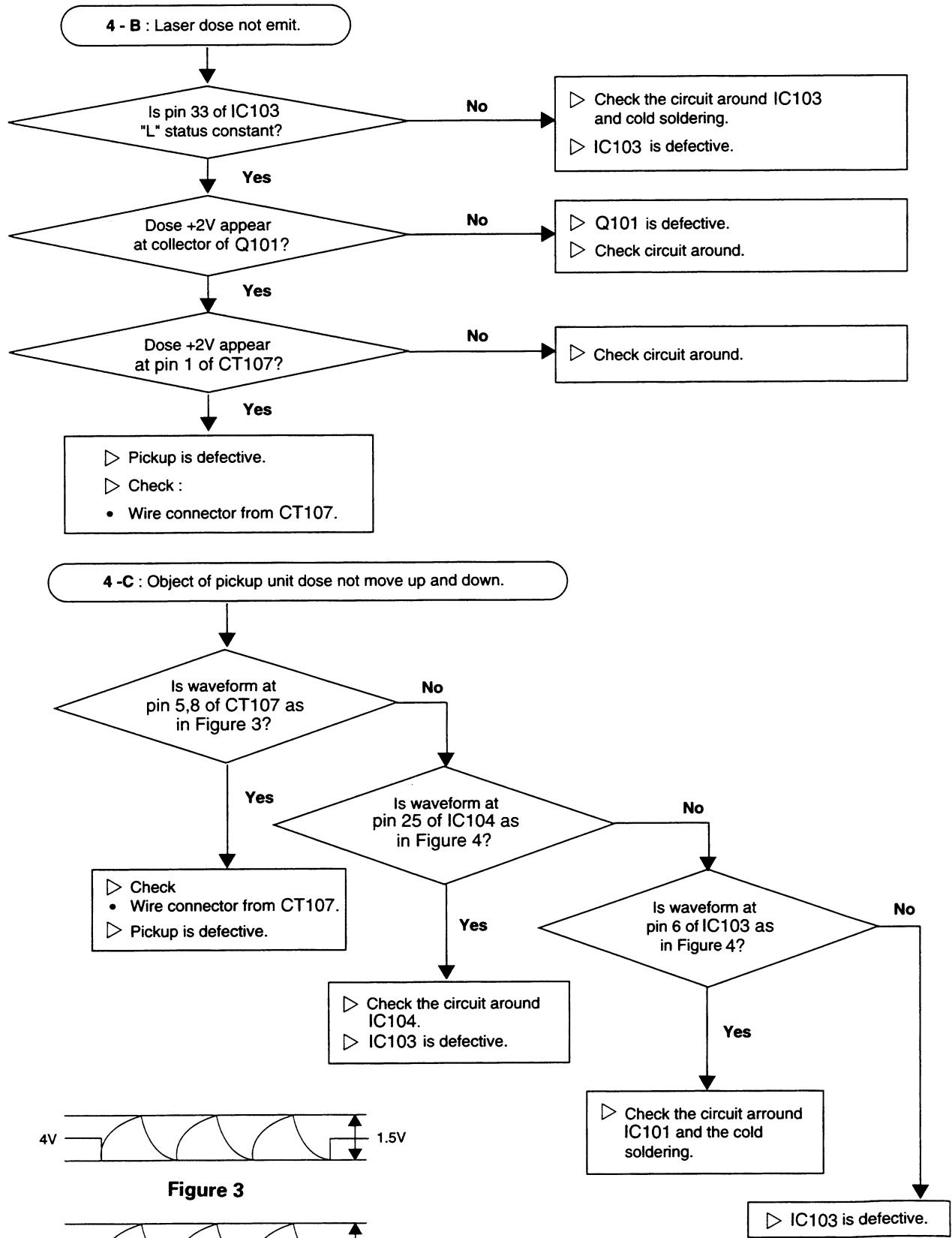
Allowable Playback/Recording Frequency Response Zone

Figure 2

TROUBLESHOOTING







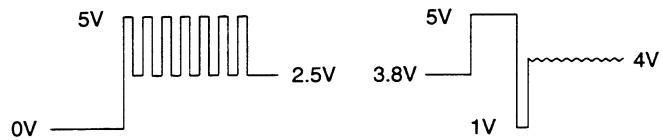
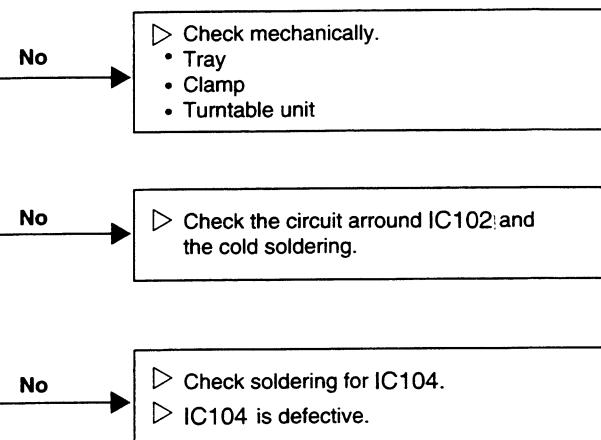
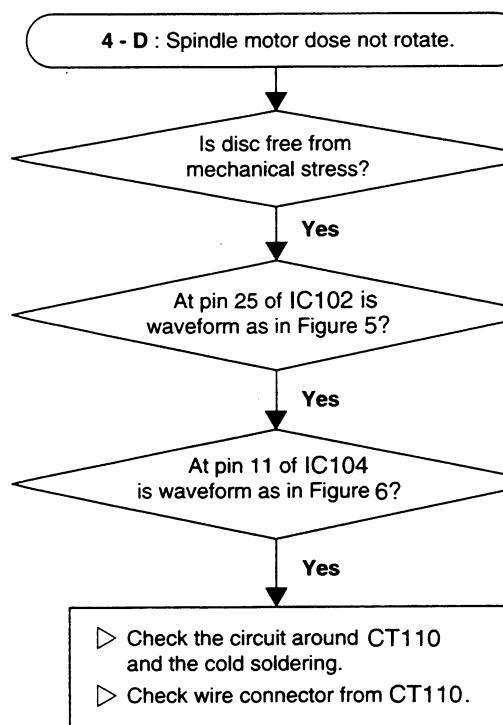


Figure 5

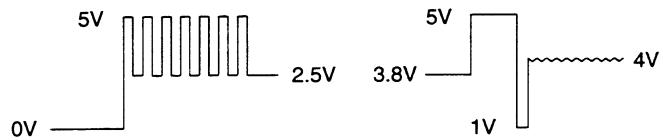


Figure 6

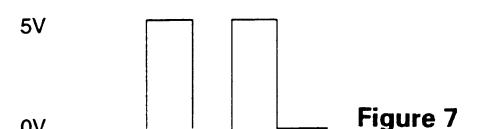
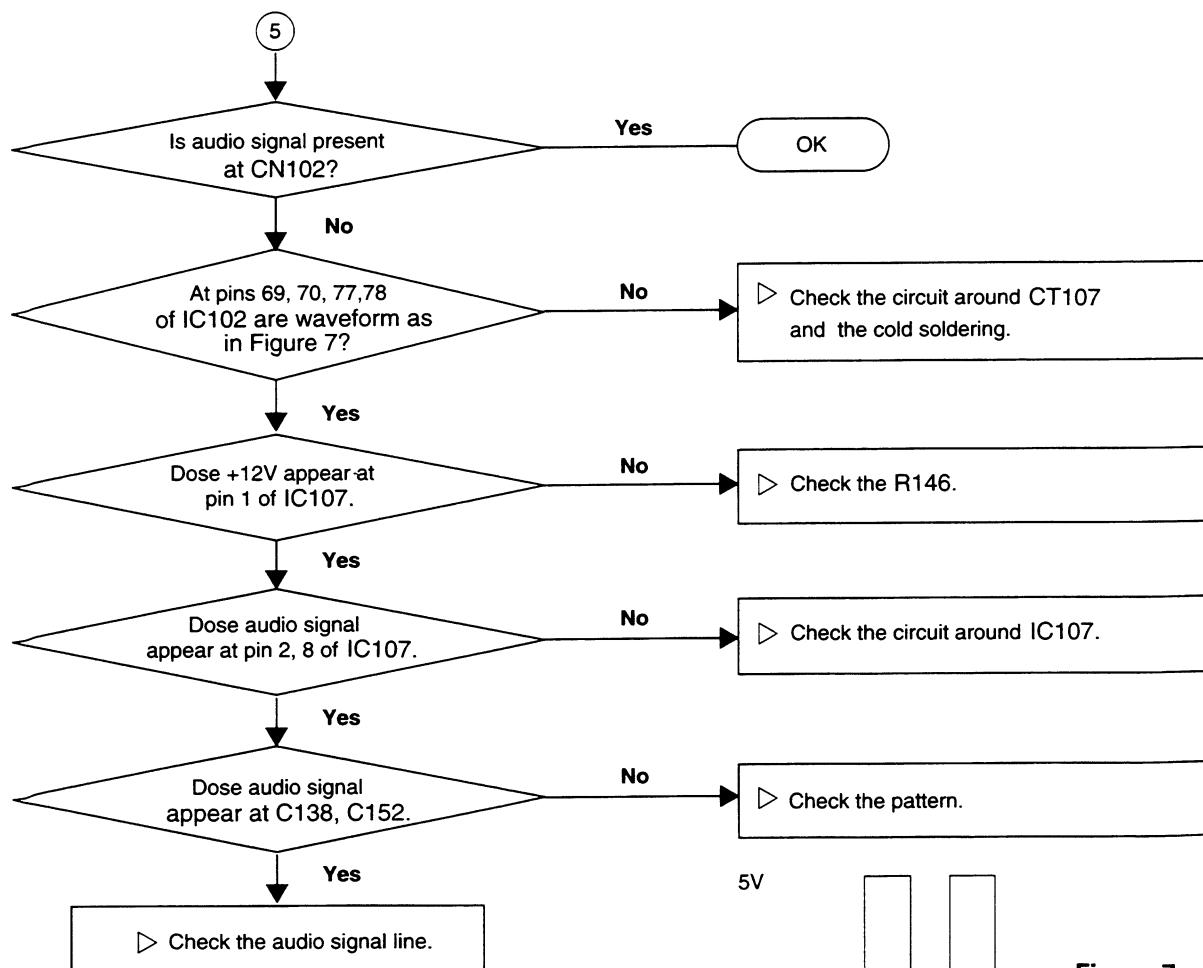
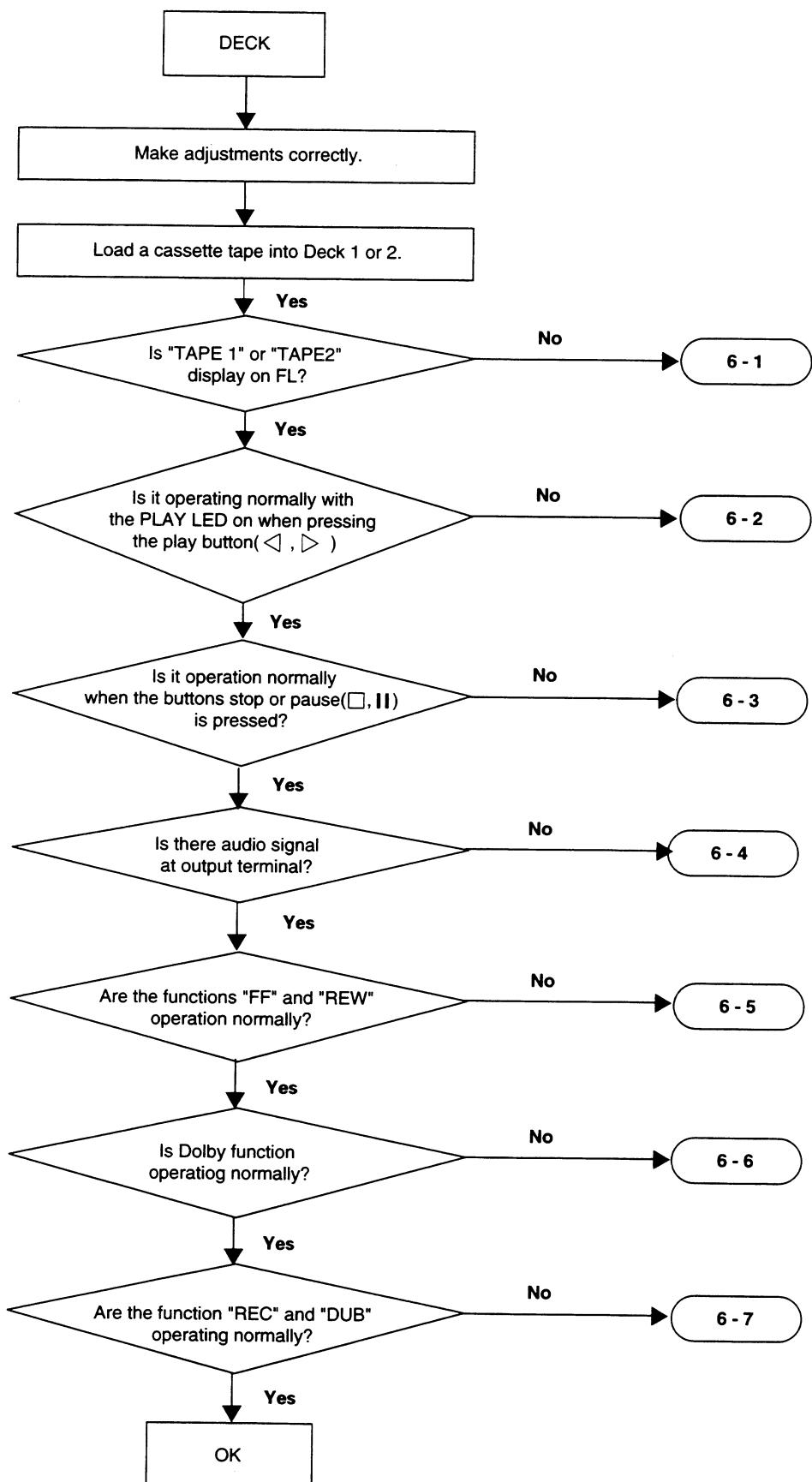


Figure 7



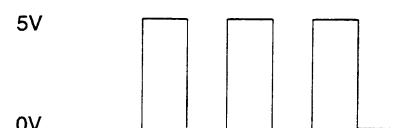
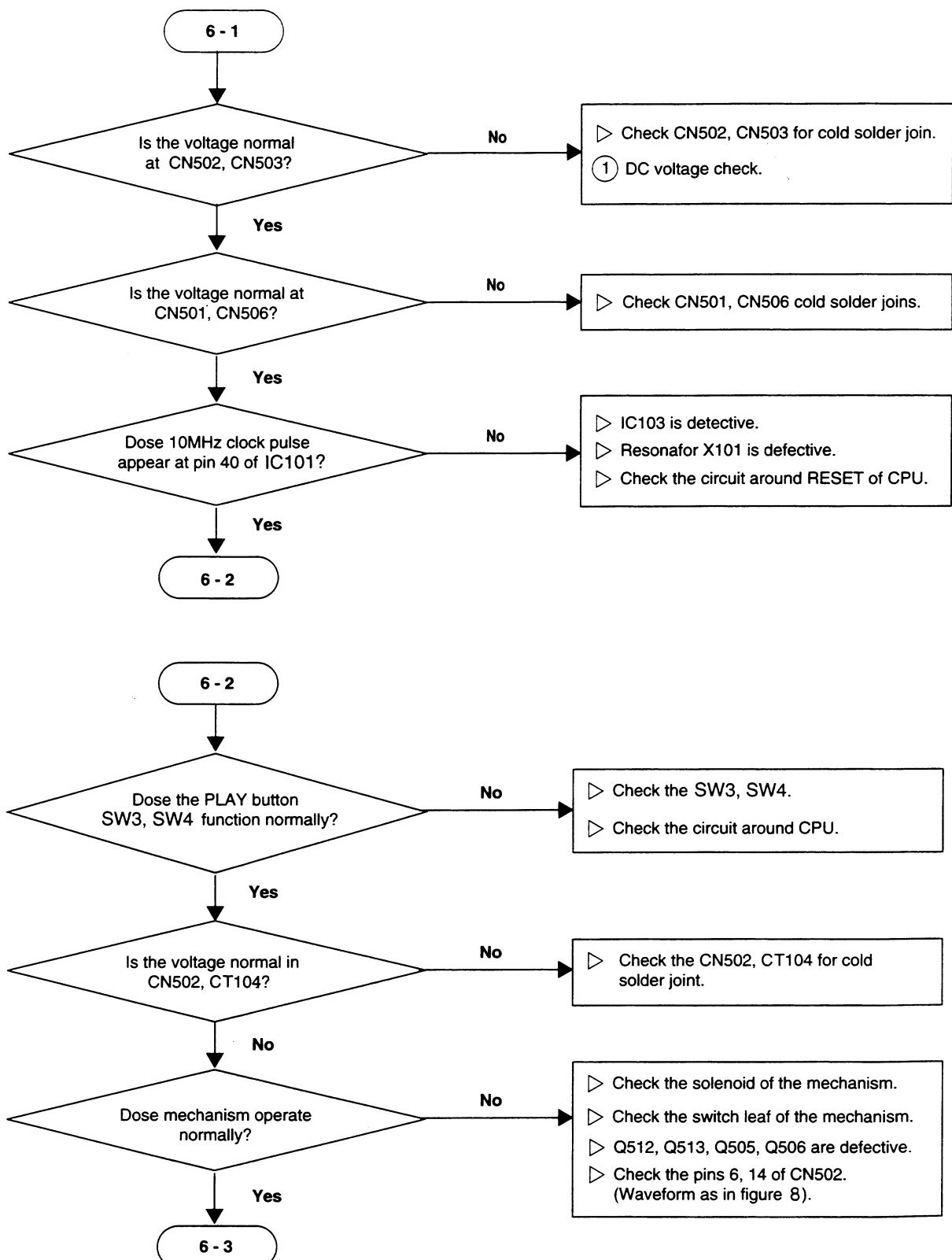
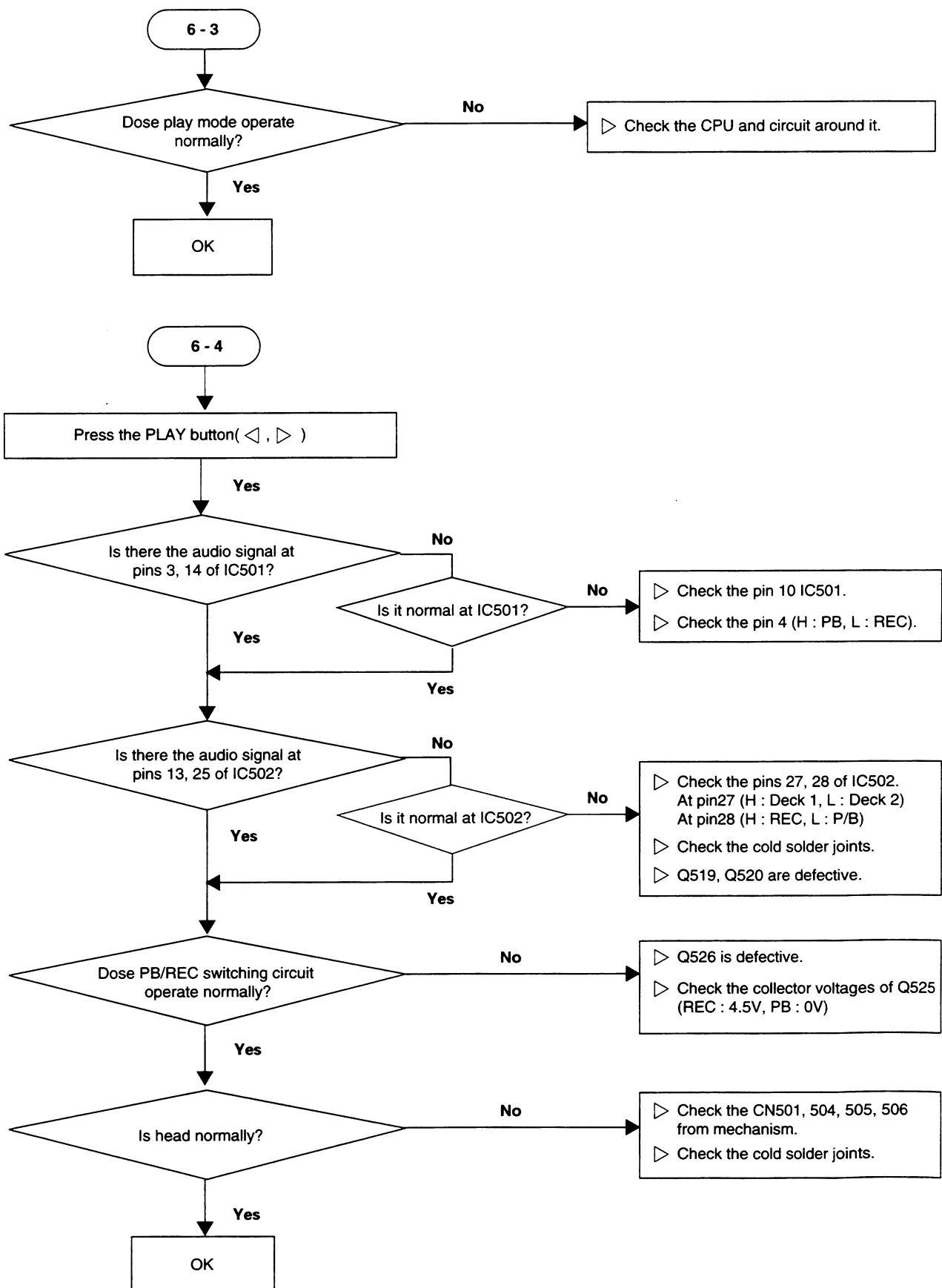
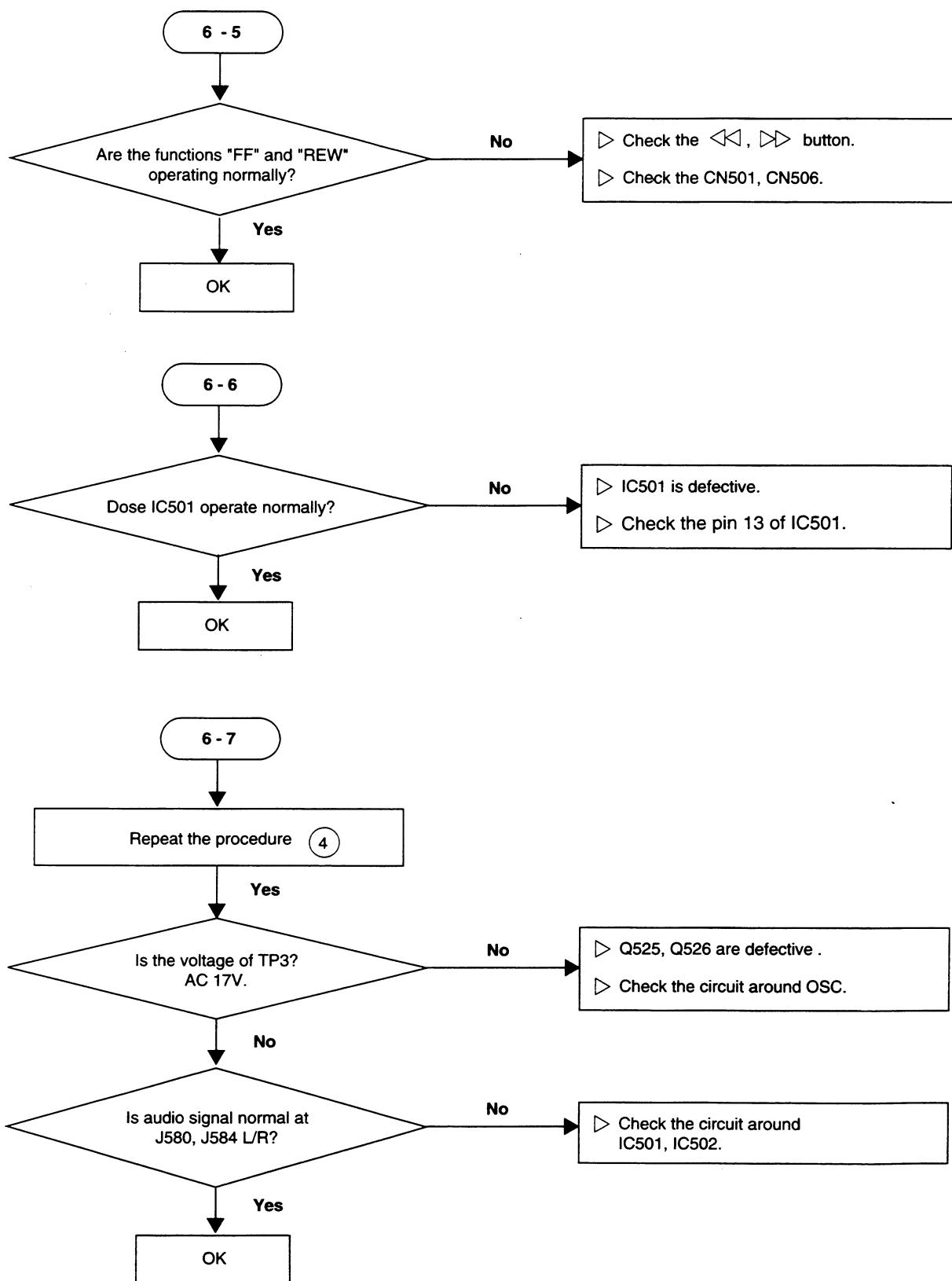


Figure 8





MECHANICAL PARTS LIST

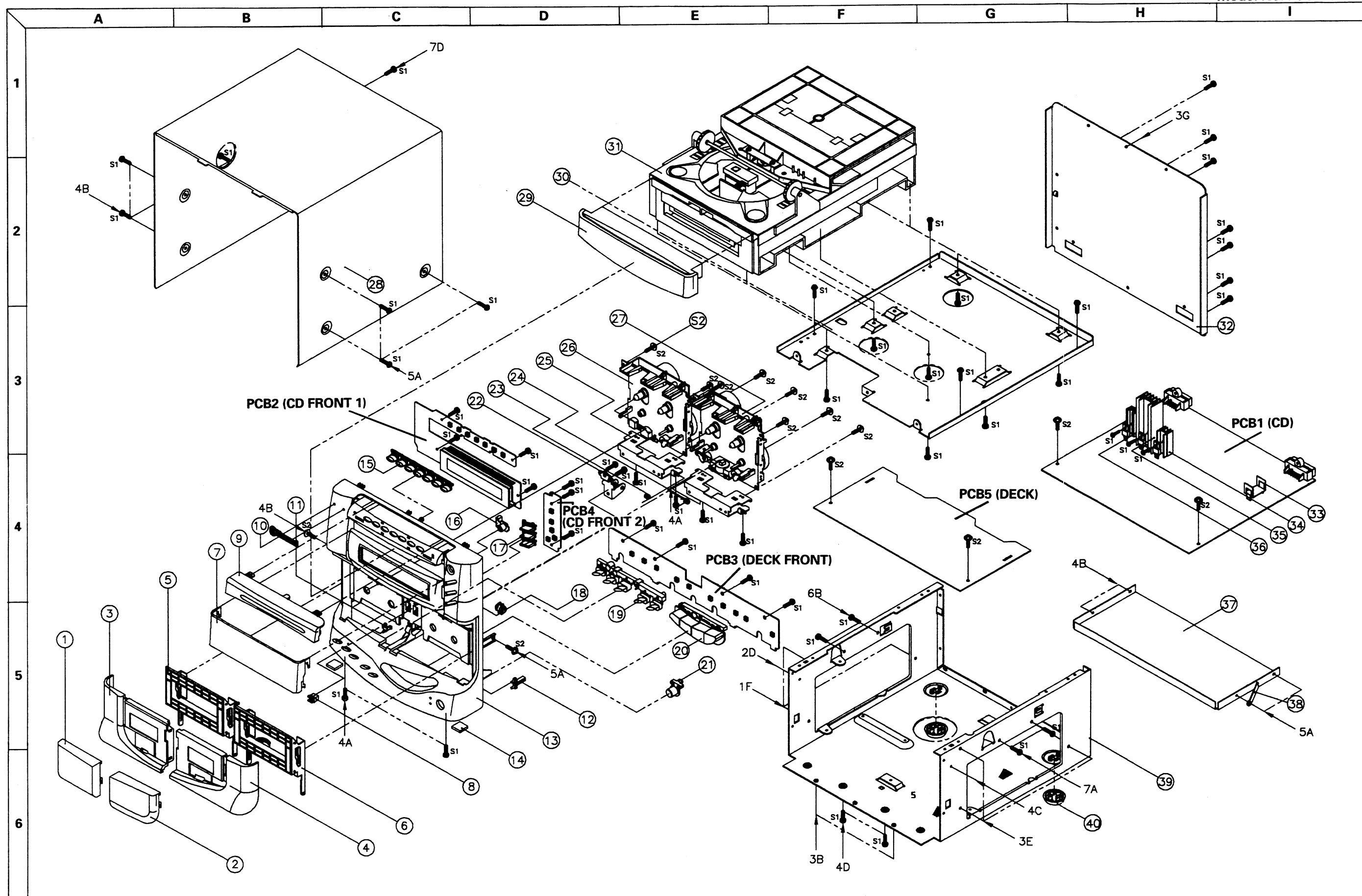
REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	VERSION
PACKAGE				
	FILM SOFT PE	632004002201	1	
	CUSHION POLY	623004374401	1	
CABINET & CHASSIS				
1	DOOR WINDOW "A"		1	
2	DOOR WINDOW "B"	507704081301	1	
3	DOOR DECK "A"	504704154101	1	
4	DOOR DECK "B"	504704155101	1	
5	LID CASSETTE "A"	504004043101	1	
6	LID CASSETTE "B"	504004044101	1	
7	WINDOW DISPLAY	507004436101	1	
8	LOCKER	253004130301	2	
9	COVER FRONT	431004651101	1	
10	BADGE, SHERWOOD	563704066101	1	
(10)	BADGE, INKEL	563704067101	1	K(ONLY)
11	INDICATOR "A"	516004075301	1	
12	INDICATOR "B"	516004076301	1	
13	PANEL FRONT	306704213101	1	
14	FOOT CUSHION	405004464501	2	
15	BUTTON, 7KEY	509704640101	1	
16	BUTTON, 1KEY	509006667101	1	
17	BUTTON, 4KEY CD	509005901101	1	
18	DAMFER OIL	366004018301	2	
19	BUTTON, 5KEY	509005903101	1	
20	BUTTON, 4KEY DECK	509704638101	1	
21	BUTTON, DECK SELECTOR	509006665101	1	
22	GUIDE LID CASSETTE	432004378101	1	
23	SPRING DOOR "L"	372004365601	1	
24	SPRING DOOR "R"	372004366601	1	
25	BRACKET MECHA	401004358601	2	
26	DECK MECHA, P/B	815004141001	1	
27	DECK MECHA, R/B	815004142001	1	
28	COVER TOP	300704210603	1	
29	DOOR TRAY	504704257101	1	
30	BRACKET CHANGER	401004042601	1	
31	MECHA CHANGER, TCD-MB7T-AN	803004069201	1	
32	CHASSIS BACK	320704268601	1	PT INDO
(32)	CHASSIS BACK	320704268602	1	K(ONLY)
(32)	CHASSIS BACK	320704268603	1	D
33	HEATSINK, IC	307004626601	1	
34	HEATSINK, REGULATOR TR (15X30)	212004433801	1	
35	HEATSINK, REGULATOR TR (24X60)	212004430801	1	
36	HEATSINK, REGULATOR TR (24X30)	212004428801	1	
37	SHIELD FENCE	307004649601	1	
38	CLAMP WIRE	433004021301	1	
39	CHASSIS MAIN	320004476601	1	
40	FOOT	400004057101	2	
HARDWARE KIT				
S1	SCREW, #8 BTT 3X8B	BO20030083B1	50	
S2	SCREW #2 WPTC 3X8Y	BO10530081W1	14	
MISCELLANEOUS				
	CARD CABLE, YS-1.25-31-200-C (CN101 TO CN101)	L30118631205	1	
	CARD CABLE, YS-1.25-21-160-C (CN102 TO CN502)	L30118621165	1	
	CONNECTOR, 7P 26 mm (CN103 TO CN103)	L02207263832	1	
	CONNECTOR, 7P 200mm (CN505 TO PLAY BACK HEAD)	L01207208002	1	
	CONNECTOR, 3P 260mm	L02203265032	1	

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list are of special significance to safety. When replacing a component identified with Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

EXPLODED VIEW

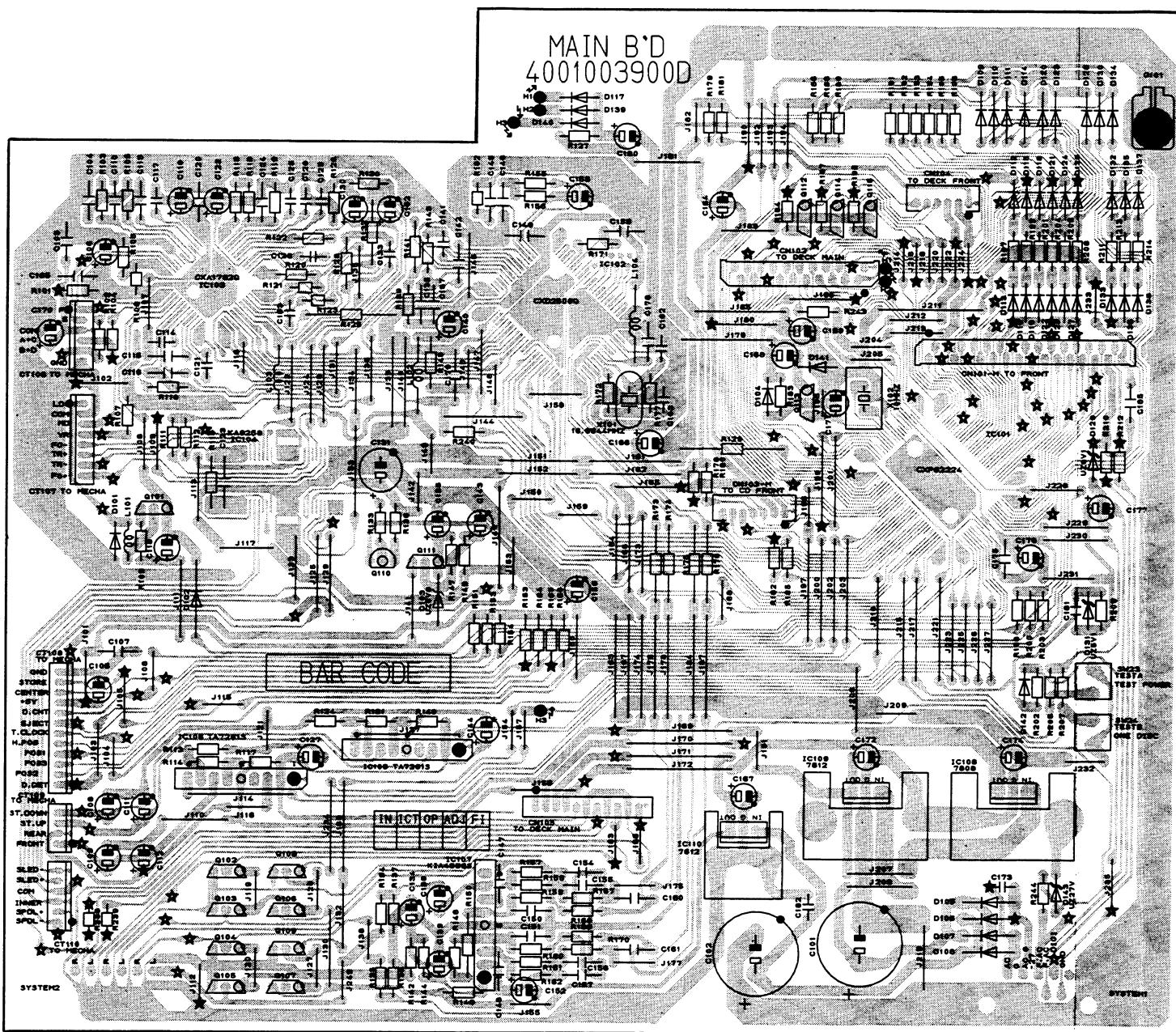
Model No. : CCD-676



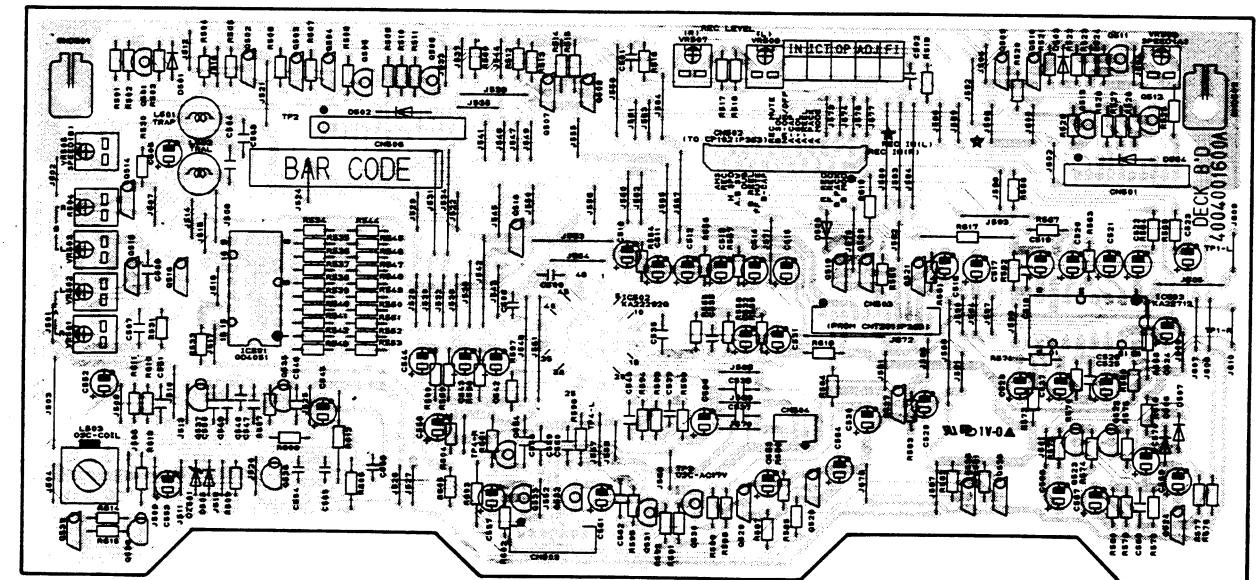
PRINTED CIRCUIT BOARDS

Model No. : CCD-676

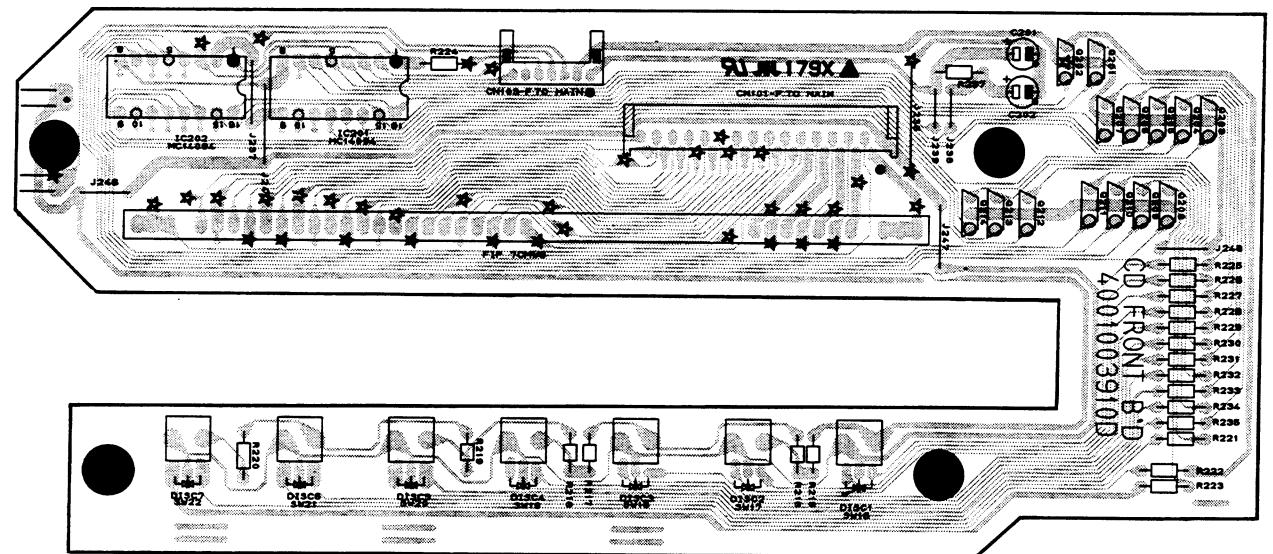
PCB1 (CD)



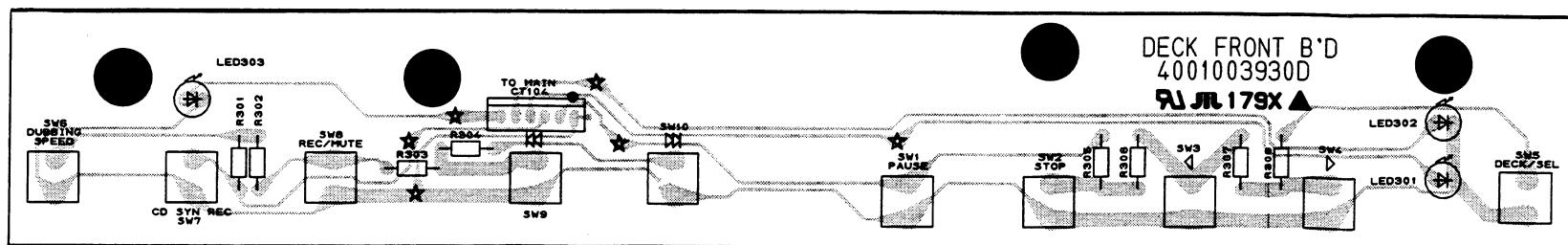
PCB5 (DECK)



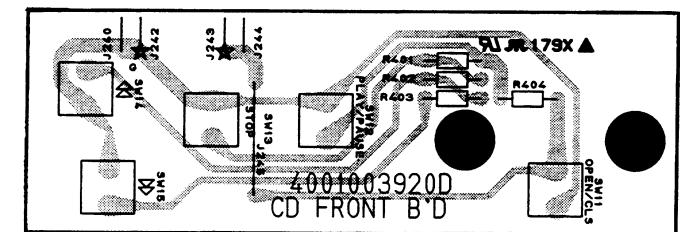
PCB2 (CD FRONT 1)



PCB3 (DECK FRONT)



PCB4 (CD FRONT 2)



ELECTRICAL PARTS LIST

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	REF. NO.	DESCRIPTION	PARTS NO.	Q'TY		
PCB1	ASSEMBLY P.C. BOARD CD			D129	ZENER, UZ 9.18SC	K06009R12452	1		
	CAPACITORS			D130	SWITCHING, 1N4148M	K00041480152	1		
C101/C102	ELECTROLYTIC SG	2200 μ F	25 V M	D04022208420	2	D131	ZENER, UZ 5.6BSB	K06005R11452	1
C103	CERAMIC TUBULAR	0.022 μ F	25 V Z	D00522357453	1	D132-D142	SWITCHING, 1N4148M	K00041480152	11
C104	CERAMIC TUBULAR	0.01 μ F	50 V Z	D00510307753	1				
C105/C106	ELECTROLYTIC SG	100 μ F	10 V M	D04010108210	2				
C107	CERAMIC TUBULAR	0.022 μ F	25 V Z	D00522357453	1				
C108/C109	ELECTROLYTIC SG	100 μ F	10 V M	D04010108210	2				
C110	CERAMIC TUBULAR	0.01 μ F	50 V Z	D00510307753	1				
C111/C112	ELECTROLYTIC SG	100 μ F	10 V M	D04010108210	2				
C113	CERAMIC TUBULAR	0.022 μ F	25 V Z	D00522357453	1				
C114	MYLAR	0.033 μ F	100 V J	D02033306C06	1				
C115/C116	CERAMIC TUBULAR	0.01 μ F	50 V Z	D00510307753	2				
C117	MYLAR	0.1 μ F	250 V J	D02010407H08	1				
C118	ELECTROLYTIC SG	22 μ F	16 V M	D04022008310	1				
C119	ELECTROLYTIC SG	100 μ F	10 V M	D04010108210	1				
C120	CERAMIC TUBULAR	0.022 μ F	25 V Z	D00522357453	1				
C121	MYLAR	0.033 μ F	100 V J	D02033306C06	1				
C122	ELECTROLYTIC SG	4.7 μ F	50 V M	D0404R708710	1				
C123	CERAMIC TUBULAR	0.01 μ F	50 V Z	D00510307753	1				
C124	CERAMIC TUBULAR	0.002 μ F	16 V Z	D00522273553	1				
C125	MYLAR	0.1 μ F	250 V J	D02010407H08	1				
C126	MYLAR	0.033 μ F	100 V J	D02033306C06	1				
C127	ELECTROLYTIC SG	47 μ F	16 V M	D0404R7008310	1				
C128	MYLAR	0.1 μ F	250 V J	D02010407H08	1				
C129	MYLAR	0.1 μ F	250 V J	D02010407H08	1				
C130	ELECTROLYTIC SG	22 μ F	16 V M	D04022008310	1				
C131	ELECTROLYTIC SG	470 μ F	10 V M	D0404R708210	1				
C132	ELECTROLYTIC SG	3.3 μ F	50 V M	D0403R308710	1				
C133	MYLAR	0.047 μ F	100 V J	D02047306C06	1				
C134	ELECTROLYTIC SG	47 μ F	16 V M	D0404R7008310	1				
C135	CERAMIC TUBULAR	0.022 μ F	25 V Z	D00522357453	1				
C136	ELECTROLYTIC SG	100 μ F	10 V M	D04010108210	1				
C137	CERAMIC TUBULAR	0.022 μ F	25 V Z	D00522357453	1				
C138	ELECTROLYTIC SG	10 μ F	50 V M	D04010008710	1				
C139	ELECTROLYTIC SG	47 μ F	16 V M	D0404R7008310	1				
C140	ELECTROLYTIC SG	100 μ F	10 V M	D04010108210	1				
C141	MYLAR	0.002 μ F	100 V J	D02015206C06	1				
C142	CERAMIC TUBULAR	0.01 μ F	50 V Z	D00510307753	1				
C143	ELECTROLYTIC SG	100 μ F	10 V M	D04010108210	1				
C144	ELECTROLYTIC SG	47 μ F	16 V M	D0404R7008310	1				
C145	CERAMIC TUBULAR	220 μ F	50 V J	D00522107753	1				
C146	CERAMIC TUBULAR	0.01 μ F	50 V Z	D00510307753	1				
C147/C148	CERAMIC TUBULAR	120 μ F	50 V J	D00512107753	2				
C149	CERAMIC TUBULAR	0.022 μ F	25 V Z	D00522357453	1				
C150/C151	CERAMIC TUBULAR	120 μ F	50 V J	D00512107753	2				
C152	ELECTROLYTIC SG	10 μ F	50 V M	D04010008710	1				
C153	ELECTROLYTIC SG	4.7 μ F	50 V M	D0404R708710	1				
C154-C157	CERAMIC TUBULAR	120 μ F	50 V J	D00512107753	4				
C158	ELECTROLYTIC SG	100 μ F	10 V M	D04010108210	1				
C159	CERAMIC TUBULAR	100 μ F	50 V J	D00110107753	1				
C160/C161	CERAMIC TUBULAR	120 μ F	50 V J	D00512107753	2				
C162/C163	CERAMIC DISC CH	33 μ F	50 V J	D00033016707	2				
C164	ELECTROLYTIC SG	47 μ F	16 V M	D0404R7008310	1				
C165	CERAMIC TUBULAR	0.022 μ F	25 V Z	D00522357453	1				
C166	ELECTROLYTIC SG	47 μ F	16 V M	D0404R7008310	1				
C167	ELECTROLYTIC SG	1 μ F	50 V M	D04001008710	1				
C168	ELECTROLYTIC SG	3.3 μ F	50 V M	D0403R308710	1				
C169	ELECTROLYTIC SG	100 μ F	10 V M	D04010108210	1				
C170	ELECTROLYTIC SG	22 μ F	16 V M	D04022008310	1				
C171	ELECTROLYTIC SG	3.3 μ F	50 V M	D0403R308710	1				
C172	ELECTROLYTIC SG	1 μ F	50 V M	D04001008710	1				
C173	MYLAR	0.047 μ F	100 V J	D02047306C06	1				
C174	ELECTROLYTIC SG	1 μ F	50 V M	D04001008710	1				
C175	CERAMIC TUBULAR	0.022 μ F	25 V Z	D00522357453	1				
C176	ELECTROLYTIC SG	100 μ F	10 V M	D04010108210	1				
C177	ELECTROLYTIC SG	10 μ F	50 V M	D04010008710	1				
C178	CERAMIC TUBULAR	0.1 μ F	50 V Z	D00514049753	1				
C179	CERAMIC TUBULAR	0.022 μ F	25 V Z	D00522357453	1				
C180	ELECTROLYTIC SG	10 μ F	50 V M	D04010008710	1				
C181	CERAMIC TUBULAR	470 μ F	50 V J	D00547107753	1				
	CONNECTORS								
CN101	PLUG, FFC-S2045-31		L13152045310	1					
CN102	PLUG, FPC 21P		L13183700210	1					
CN103	PLUG, GIL-S-7P-S2T2		L10122007000	1					
CN104	PLUG, GIL-S-6P-S2T2		L10122006000	1					
CN105	LEAD ASSY, 11P 180mm		L02211183332	1					
CT106	LEAD ASSY, 5P 180mm		L01205187782	1					
CT107	LEAD ASSY, 8P 200mm		L01208202132	1					
CT108	LEAD ASSY, 12P 180mm		L01212182132	1					
CT109	LEAD ASSY, 4P 180mm		L01204182132	1					
CT110	LEAD ASSY, 8P 180mm		L01206182132	1					
SYSTEM1	SYSTEM CONNECTOR, 9P		L14052303090	1					
SYSTEM2	SYSTEM CONNECTOR, 11P		L14052303110	1					
	DIODES								
D101/D102	SWITCHING, 1N4148M		K00041480152	2					
D103	ZENER, UZ 5.6BSB		K06005R61452	1					
D104	SWITCHING, 1N4148M		K00041480152	1					
D105-D108	RECTIFIER, 1N4003		K04040030052	4					
D109-D128	SWITCHING, 1N4148M		K00041480152	10					
	INTEGRATED CIRCUITS								
	CX882224-134Q, DWP332					J02082224134	1		
	CXD2508Q					J03125080001	1		
	CXA1782BQ					J03217820000	1		
	KA9258D					J12792580000	1		
	IC105/IC106					J12772910000	2		
	KIA4559S/KIA7559S					J12145590000	1		
	KA7808, REGULATOR					J12678080006	1		
	IC109/IC110					J12678012000	2		
	COILS								
L101-L104	INDUCTOR, 10 μ H					D33010000102	4		
	TRANSISTORS								
Q101	BKTA1267Y, PNP					J5001267Y005	1		
Q102-Q105	DTC323TS, NPN					J602323TS005	4		
Q106-Q109	DTA114YS					J601114YS005	4		
Q110	MPA56, PNP					J5005600Y005	1		
Q111	BKTC3199, NPN					J5023199Y005	1		
Q112-Q115	DTC114YS					J60201140005	4		
	RESISTORS								
R101	METAL FILM					1 kohm	1/5 W J	C06001026P52	1
R102	METAL FILM					470 ohm	1/5 W J	C06004716P52	1
R103	CARBON FILM					100 kohm	1/5 W J	C00001046P52	1
R104	METAL FILM					470 ohm	1/5 W J	C06004716P52	1
R105	CARBON FILM					22 kohm	1/5 W J	C00002236P52	1
R106	CARBON FILM					100 kohm	1/5 W J	C00001046P52	1
R107	METAL FILM					100 ohm	1/5 W J	C06001016P52	1
R108	CARBON FILM					22 kohm	1/5 W J	C00002236P52	1
R109	METAL FILM					22 ohm	1/5 W J	C00002206P52	1
R110	CARBON FILM					27 kohm	1/5 W J	C00002736P52	1
R111/R112	CARBON FILM					10 kohm	1/5 W J	C00001036P52	2
R113	CARBON FILM					5.6 kohm	1/5 W J	C00005626P52	1
R114	METAL FILM					2.7 kohm	1/5 W J	C06002726P52	1
R115/R116	CARBON FILM					10 kohm	1/5 W J	C00001036P52	2
R117	METAL FILM					1 ohm	1/5 W J	C06000106P52	1
R118/R119	CARBON FILM					10 kohm	1/5 W J	C00001036P52	2
R120	CARBON FILM					100 kohm	1/5 W J	C00001046P52	1
R121	CARBON FILM					82 kohm	1/5 W J	C00008236P52	1
R122	CARBON FILM					68 kohm	1/5 W J	C00006836P52	1
R123	CARBON FILM					82 kohm	1/5 W J	C00008236P52	1
R124	CARBON FILM					5.6 kohm	1/5 W J	C00005626P52	1
R125	CARBON FILM					120 kohm	1/5 W J	C00001246P52	1
R126	CARBON FILM					680 kohm	1/5 W J	C00006846P52	1
R127	CARBON FILM					33 kohm	1/5 W J	C00003336P52	1
R128	CARBON FILM					470 kohm	1/5 W J	C00004746P52	1
R129	CARBON FILM								

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY
R187	METAL FILM	150 ohm 1/5 W J	C06001516P52 1
R188/R189	CARBON FILM	47 kohm 1/5 W J	C00004736P52 2
R190	METAL FILM	150 ohm 1/5 W J	C06001516P52 1
R191-R196	CARBON FILM	47 kohm 1/5 W J	C00004736P52 6
R197	METAL FILM	1 kohm 1/5 W J	C06001026P52 1
R198	CARBON FILM	47 kohm 1/5 W J	C00004736P52 1
R199	METAL FILM	1 kohm 1/5 W J	C06001026P52 1
MISCELLANEOUS			
X101	CRYSTAL, 16.9344MHz	E80016934446	1
X102	RESONATOR, CST10.0MTW-TF01	E8301000005	1
SW16	SWITCH TACT, SKHV10910D01 KB581	G18004050001	1
SW17	SWITCH TACT, SKHV10910D01 KB581	G18004050001	1
SW18	SWITCH TACT, SKHV10910D01 KB581	G18004050001	1
SW19	SWITCH TACT, SKHV10910D01 KB581	G18004050001	1
SW20	SWITCH TACT, SKHV10910D01 KB581	G18004050001	1
SW21	SWITCH TACT, SKHV10910D01 KB581	G18004050001	1
SW22	SWITCH TACT, SKHV10910D01 KB581	G18004050001	1
SW23	SWITCH TACT, SKHV10910D01 KB581	G18004050001	1
SW24	SWITCH TACT, SKHV10910D01 KB581	G18004050001	1
33	HEATSINK, IC	307004626601	1
34	HEATSINK, REGULATOR TR (15X30)	212004433801	1
35	HEATSINK, REGULATOR TR (24X60)	212004430801	1
36	HEATSINK, REGULATOR TR (24X30)	212004428801	1
	CONNECTOR, 2P, 140mm	L02202143632	1
	WIRE, HI-WP #24BK FF140	L04624101444	1
	TERMINAL GROUND	379004069601	1

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY
PCB2 ASSEMBLY P.C. BOARD CD FRONT1			
CAPACITORS			
C201	ELECTROLYTIC SG	47 μ F 16 V M	D04047008310 1
C202	ELECTROLYTIC SG	100 μ F 10 V M	D04010108210 1
CONNECTORS			
CN101	PLUG, FPC-52044-31	L13152044310	1
CN103	PLUG, GIL-07P-S2L2-EF	L10122007001	1
INTEGRATED CIRCUITS			
IC201/IC202	MC14094BCP	J04014094000	2
TRANSISTORS			
Q201-Q214	DTC114YS	J60201140005	4
RESISTORS			
R200	CARBON FILM	47 kohm 1/5 W J	C00004736P52 1
R201	METAL FILM	1 kohm 1/5 W J	C06001026P52 1
R202	CARBON FILM	10 kohm 1/5 W J	C00001036P52 1
R203	CARBON FILM	47 kohm 1/5 W J	C00004736P52 1
R204	METAL FILM	1 kohm 1/5 W J	C06001026P52 1
R205	CARBON FILM	47 kohm 1/5 W J	C00004736P52 1
R206	METAL FILM	1 kohm 1/5 W J	C06001026P52 1
R207	CARBON FILM	47 kohm 1/5 W J	C00004736P52 1
R208	METAL FILM	1 kohm 1/5 W J	C06001026P52 1
R209	CARBON FILM	470 kohm 1/5 W J	C00004746P52 1
R210	METAL FILM	2.2 ohm 1/5 W J	C0602R206P52 1
R211	METAL FILM	1 kohm 1/5 W J	C06001026P52 1
R212	METAL FILM	2.2 ohm 1/5 W J	C0602R206P52 1
R213/R214	METAL FILM	1 kohm 1/5 W J	C06001026P52 2
R215	METAL FILM	1.5 kohm 1/5 W J	C06001526P52 1
R216	METAL FILM	2.7 kohm 1/5 W J	C06002726P52 1
R217/R218	METAL FILM	3.6 kohm 1/5 W J	C06003626P52 2
R219	CARBON FILM	10 kohm 1/5 W J	C00001036P52 1
R220	CARBON FILM	24 kohm 1/5 W J	C00002436P52 1
R221	METAL FILM	270 ohm 1/5 W J	C06002716P52 1
R222	METAL FILM	150 ohm 1/5 W J	C06001516P52 1
R223	METAL FILM	270 ohm 1/5 W J	C06002716P52 1
R224	METAL FILM	1 kohm 1/5 W J	C06001026P52 1
R225	METAL FILM	150 ohm 1/5 W J	C06001516P52 1
R226	METAL FILM	270 ohm 1/5 W J	C06002716P52 1
R227	METAL FILM	150 ohm 1/5 W J	C06001516P52 1
R228	METAL FILM	270 ohm 1/5 W J	C06002716P52 1
R229	METAL FILM	150 ohm 1/5 W J	C06001516P52 1
R230	METAL FILM	270 ohm 1/5 W J	C06002716P52 1
R231	METAL FILM	150 ohm 1/5 W J	C06001516P52 1
R232	METAL FILM	270 ohm 1/5 W J	C06002716P52 1
R233	METAL FILM	150 ohm 1/5 W J	C06001516P52 1
R234	METAL FILM	270 ohm 1/5 W J	C06002716P52 1
R235	METAL FILM	150 ohm 1/5 W J	C06001516P52 1
R237	CARBON FILM	15 kohm 1/5 W J	C00001536P52 1
R238/R239	CARBON FILM	24 kohm 1/5 W J	C00002436P52 2
R240	METAL FILM	1 kohm 1/5 W J	C06001026P52 1
R243	CARBON FILM	10 kohm 1/5 W J	C00001036P52 1
MISCELLANEOUS			
SW16	SWITCH TACT, SKHV10910D01 KB581, 1	G18004050001	1
SW17	SWITCH TACT, SKHV10910D01 KB581, 2	G18004050001	1
SW18	SWITCH TACT, SKHV10910D01 KB581, 3	G18004050001	1
SW19	SWITCH TACT, SKHV10910D01 KB581, 4	G18004050001	1
SW20	SWITCH TACT, SKHV10910D01 KB581, 5	G18004050001	1
SW21	SWITCH TACT, SKHV10910D01 KB581, 6	G18004050001	1
SW22	SWITCH TACT, SKHV10910D01 KB581, 7	G18004050001	1

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY
PCB3 ASSEMBLY P.C. BOARD DECK FRONT			
LED301 LED, SLR-34GCN49			
LED302 LED, SLR-34GCN49			
LED303	LED, SLR-34GCN49	K50003510123	1
CT104	CNT, LEAD ASSY 6P 200mm	L02206202123	1
R301	RES, METAL FILM	1.5 kohm 1/5 W J	C06001526P52 1
R302	RES, METAL FILM	2.7 kohm 1/5 W J	C06002726P52 1
R303	RES, METAL FILM	3.6 kohm 1/5 W J	C06003626P52 1
R304	RES, CARBON FILM	5.6 kohm 1/5 W J	C00005626P52 1
R305	RES, METAL FILM	1.5 kohm 1/5 W J	C06001526P52 1
R306	RES, METAL FILM	2.7 kohm 1/5 W J	C06002726P52 1
R307	RES, METAL FILM	3.6 kohm 1/5 W J	C06003626P52 1
R308	RES, CARBON FILM	5.6 kohm 1/5 W J	C00005626P52 1
SW1	SWITCH TACT, SKHV10910D01 KB581, PAUSE	G18004050001	1
SW2	SWITCH TACT, SKHV10910D01 KB581, STOP	G18004050001	1
SW3	SWITCH TACT, SKHV10910D01 KB581, B, PLAY	G18004050001	1
SW4	SWITCH TACT, SKHV10910D01 KB581, F, PLAY	G18004050001	1
SW5	SWITCH TACT, SKHV10910D01 KB581, DECK 1.2	G18004050001	1
SW6	SWITCH TACT, SKHV10910D01 KB581, DUBBING	G18004050001	1
SW7	SWITCH TACT, SKHV10910D01 KB581, CD SYN R	G18004050001	1
SW8	SWITCH TACT, SKHV10910D01 KB581, SEC/MUT	G18004050001	1
SW9	SWITCH TACT, SKHV10910D01 KB581, < <	G18004050001	1
SW10	SWITCH TACT, SKHV10910D01 KB581, > >	G18004050001	1

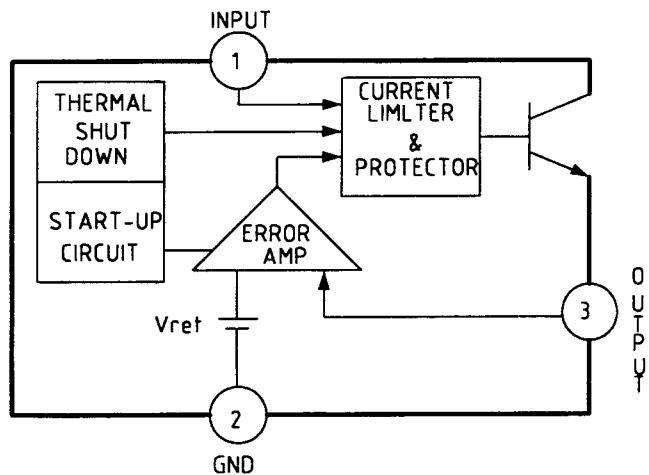
REF. NO.	DESCRIPTION	PARTS NO.	Q'TY
PCB4 ASSEMBLY P.C. BOARD CD FRONT12			
R401 RES, METAL FILM			
R402	RES, METAL FILM	2.7 kohm 1/5 W J	C06002726P52 1
R403	RES, CARBON FILM	3.6 kohm 1/5 W J	C00005626P52 1
R404	RES, METAL FILM	5.6 kohm 1/5 W J	C06001526P52 1
SW11	SWITCH TACT, SKHV10910D01 KB581, OPEN/CL	G18004050001	1
SW12	SWITCH TACT, SKHV10910D01 KB581, PLAY/PA	G18004050001	1
SW13	SWITCH TACT, SKHV10910D01 KB581, STOP	G18004050001	1
SW14	SWITCH TACT, SKHV10910D01 KB581, B, SKIP	G18004050001	1
SW15	SWITCH TACT, SKHV10910D01 KB581, F, SKIP	G18004050001	1

REF. NO.	DESCRIPTION	PARTS NO.	Q'TY
PCB5 ASSEMBLY P.C. BOARD DECK			
CAPACITORS			
C501/C502	MYLAR	0.008 μ F	100 V J
C503/C504	CERAMIC TUBULAR	0.002 μ F	16 V Z
C505	ELECTROLYTIC SG	10 μ F	50 V M
C506	CERAMIC TUBULAR	820 μ F	50 V J
C507	CERAMIC TUBULAR	820 μ F	50 V J
C508/C509	MYLAR	0.033 μ F	100 V J
C510	ELECTROLYTIC SG	100 μ F	10 V M
C511	ELECTROLYTIC SG	4.7 μ F	50 V M
C512/C513	ELECTROLYTIC SG	47 μ F	25 V M
C514	ELECTROLYTIC SG	220 μ F	10 V M
C515	ELECTROLYTIC SG	47 μ F	25 V M
C516	ELECTROLYTIC SG	2.2 μ F	50 V M
C517	ELECTROLYTIC SG	3.3 μ F	50 V M
C518	CERAMIC TUBULAR	0.002 μ F	16 V Z
C519	ELECTROLYTIC SG	4.7 μ F	50 V M
C520	ELECTROLYTIC SG	3.3 μ F	50 V M
C521	ELECTROLYTIC SG	0.68 μ F	50 V M
C522/C523	ELECTROLYTIC SG	4.7 μ F	50 V M
C524	ELECTROLYTIC SG	0.68 μ F	50 V M
C525	ELECTROLYTIC SG	47 μ F	16 V M
C526	CERAMIC TUBULAR	0.002 μ F	16 V Z
C527	ELECTROLYTIC SG	4.7 μ F	50 V M
C528	ELECTROLYTIC SG	47 μ F	25 V M
C529	ELECTROLYTIC SG	2.2 μ F	50 V M
C530	ELECTROLYTIC SG	22 μ F	50 V M
C531	ELECTROLYTIC SG	47 μ F	25 V M
C532	ELECTROLYTIC SG	22 μ F	35 V M
C533	MYLAR	0.015 μ F	100 V J
C535	CERAMIC TUBULAR	330 μ F	50 V Z
C536/C537	CERAMIC TUBULAR	0.001 μ F	50 V Z
C538	ELECTROLYTIC SG	22 μ F	35 V M
C539	MYLAR	0.015 μ F	100 V J
C540	CERAMIC TUBULAR	330 μ F	50 V J
C542	ELECTROLYTIC SG	47 μ F	25 V M
C543	ELECTROLYTIC SG	4.7 μ F	50 V M
C544	ELECTROLYTIC SG	100 μ F	10 V M
C545	ELECTROLYTIC SG	47 μ F	25 V M
C546	CERAMIC TUBULAR	10000 μ F	16 V Z
C547	CERAMIC TUBULAR	0.001 μ F	50 V Z
C548	MYLAR	0.022 μ F	100 V J
C549	CERAMIC TUBULAR	0.001 μ F	50 V Z
C550/C551	CERAMIC TUBULAR	10000 μ F	16 V Z
C552	ELECTROLYTIC SG	100 μ F	10 V M
C553	ELECTROLYTIC SG	1 μ F	50 V M
C554	MYLAR	0.006 μ F	100 V J
C555	MYLAR	0.047 μ F	100 V J
C556	ELECTROLYTIC SG	4.7 μ F	50 V M
C557	ELECTROLYTIC SG	10 μ F	50 V M
C558	CERAMIC TUBULAR	0.001 μ F	50 V Z
C559/C560	CERAMIC TUBULAR	330 μ F	50 V J
C561	ELECTROLYTIC SG	10 μ F	50 V M
C562	CERAMIC TUBULAR	0.001 μ F	50 V Z
C563	ELECTROLYTIC SG	47 μ F	25 V M

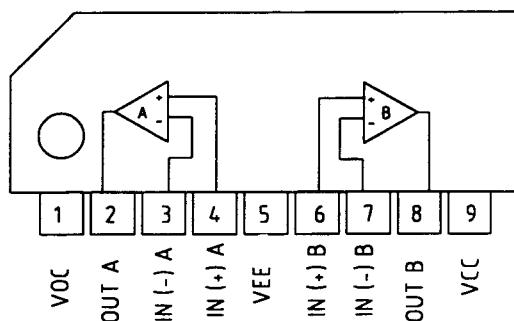
REF. NO.	DESCRIPTION	PARTS NO.	Q'TY	REF. NO.	DESCRIPTION	PARTS NO.	Q'TY
C564	ELECTROLYTIC SG	22 μ F	35 V	M	D04022008510	1	
C565	MYLAR	0.002 μ F	100 V	J	D02202206C06	1	
C566/C567	ELECTROLYTIC SG	4.7 μ F	50 V	M	D0404R708710	2	
C568	CERAMIC TUBULAR	0.002 μ F	16 V	Z	D00522277353	1	
C569	ELECTROLYTIC SG	0.1 μ F	50 V	M	D040R1008710	1	
C570	ELECTROLYTIC SG	4.7 μ F	50 V	M	D0404R708710	1	
	CONNECTORS						
CN501	LEAD ASS'Y, 10P 120mm			L02410120732	1		
CN502	PLUG, FPC 21P			L131837002210	1		
CN503	PLUG, GIL-S-11P-S2T2			L10122011000	1		
CN504	PLUG, GIL-S-3P-S2T2			L10122003000	1		
CN505	PLUG, GIL-S-7P-S2T2			L10122007000	1		
CN506	LEAD ASS'Y, 13P 120mm			L02413120732	1		
	DIODES						
D501-D509	SWITCHING, 1N4148M			K00041480152	9		
DZ501	ZENER, UZ 7.5BSC			K06007R52452	1		
	INTEGRATED CIRCUITS						
IC501	KA22712, DOLBY B TYPE			J08122712000	1		
IC502	KA22292Q			J08122292000	1		
IC503	GD4051B			J04040510001	1		
	COILS						
L501/L502	TRAP BIAS, 389AC-K5094			D30201020000	2		
L503	OSC BIAS, CQN-K5174			E08001004000	1		
	TRANSISTORS						
Q501	MPSA56, PNP			J5005600Y005	1		
Q502-Q504	DTC114YS			J60201140005	3		
Q505/Q506	MPSA56, PNP			J5005600Y005	2		
Q507-Q510	DTC114YS			J60201140005	4		
Q511-Q513	MPSA56, PNP			J5005600Y005	3		
Q514/Q515	DTA114TS			J601114TS005	2		
Q516	DTC114YS			J60201140005	1		
Q518	DTC114YS			J60201140005	1		
Q519/Q520	DTA114TS			J600114TS005	2		
Q521	DTC114YS			J60201140005	1		
Q522	KTA1015V/BKTA1266, PNP			J5001266Y005	1		
Q523	KTC3198, NPN			J5023198B005	1		
Q524-Q527	DTC114YS			J60201140005	4		
Q528/Q529	DTA114TS			J601114TS005	2		
Q530-Q534	FET, 2SK117Y			J5441170Y005	4		
Q535	KTC2236A/KTC3205, NPN			J5023205Y005	1		
Q536	KTC2400/BKTC3200, NPN			J5023200B005	1		
Q537	KTC2236A/KTC3205, NPN			J5023205Y005	1		
Q538	KTC3198, NPN			J5023198B005	1		
Q539	DTC114YS			J60201140005	1		
	RESISTORS						
R500	METAL FILM	220 ohm	1/5 W	J	C06002216P52	1	
R501	METAL FILM	1.5 kohm	1/5 W	J	C06001526P52	1	
R502	METAL FILM	220 ohm	1/5 W	J	C06002216P52	1	
R503	CARBON FILM	15 kohm	1/5 W	J	C00001536P52	1	
R504	CARBON FILM	10 kohm	1/5 W	J	C00001036P52	1	
R505	CARBON FILM	47 kohm	1/5 W	J	C00004736P52	1	
R506	METAL FILM	750 ohm	1/5 W	J	C06007516P52	1	
R507	METAL FILM	750 ohm	1/5 W	J	C06007516P52	1	
R508	CARBON FILM	47 kohm	1/5 W	J	C00004736P52	1	
R509	CARBON FILM	68 kohm	1/5 W	J	C00006836P52	1	
R510	METAL FILM	750 ohm	1/5 W	J	C06007516P52	1	
R511	CARBON FILM	47 kohm	1/5 W	J	C00004736P52	1	
R512	METAL FILM	1 kohm	1/5 W	J	C06001026P52	1	
R513-R515	CARBON FILM	10 kohm	1/5 W	J	C00001036P52	2	
R516	CARBON FILM	6.8 kohm	1/5 W	J	C00006826P52	1	
R517/R518	CARBON FILM	10 kohm	1/5 W	J	C00001036P52	2	
R519	CARBON FILM	6.8 kohm	1/5 W	J	C00006826P52	1	
R520/R521	METAL FILM	750 ohm	1/5 W	J	C06007516P52	2	
R522	CARBON FILM	15 kohm	1/5 W	J	C00001536P52	1	
R523	METAL FILM	1.5 kohm	1/5 W	J	C06001526P52	1	
R524/R525	METAL FILM	220 ohm	1/5 W	J	C06002216P52	2	
R526	CARBON FILM	47 kohm	1/5 W	J	C00004736P52	1	
R527	METAL FILM	750 ohm	1/5 W	J	C06007516P52	1	
R528	CARBON FILM	68 kohm	1/5 W	J	C00006836P52	1	
R529	CARBON FILM	47 kohm	1/5 W	J	C00004736P52	1	
R530	CARBON FILM	10 kohm	1/5 W	J	C00001036P52	1	
R531	METAL FILM	1 kohm	1/5 W	J	C06001026P52	1	
R533	CARBON FILM	10 kohm	1/5 W	J	C00001036P52	1	
R534	CARBON FILM	51 kohm	1/5 W	J	C00005136P52	1	
R535	CARBON FILM	75 kohm	1/5 W	J	C00007536P52	1	
R536	CARBON FILM	180 kohm	1/5 W	J	C00001846P52	1	
R537	CARBON FILM	68 kohm	1/5 W	J	C00006836P52	1	
R538	CARBON FILM	24 kohm	1/5 W	J	C00002443P52	1	
R539	CARBON FILM	51 kohm	1/5 W	J	C00005136P52	1	
R540	CARBON FILM	82 kohm	1/5 W	J	C00008236P52	1	
R541	CARBON FILM	150 kohm	1/5 W	J	C00001546P52	1	
R542	CARBON FILM	43 kohm	1/5 W	J	C00004336P52	1	
R543	CARBON FILM	47 kohm	1/5 W	J	C00004736P52	1	
R544	CARBON FILM	150 kohm	1/5 W	J	C00001546P52	1	
R545	CARBON FILM	120 kohm	1/5 W	J	C00001246P52	1	
R546	CARBON FILM	330 kohm	1/5 W	J	C00003346P52	1	
	SEMI FIXED VAREABLE RESISTORS						
VR501-VR504	20K(B)-H						
VR505	500(B)-H						
VR506/VR507	20K(B)-H						
VR508	500(B)-H						
	MISCELLANEOUS						
	TERMINAL GROUND						

IC'S FUNCTIONAL BLOCK DIAGRAM

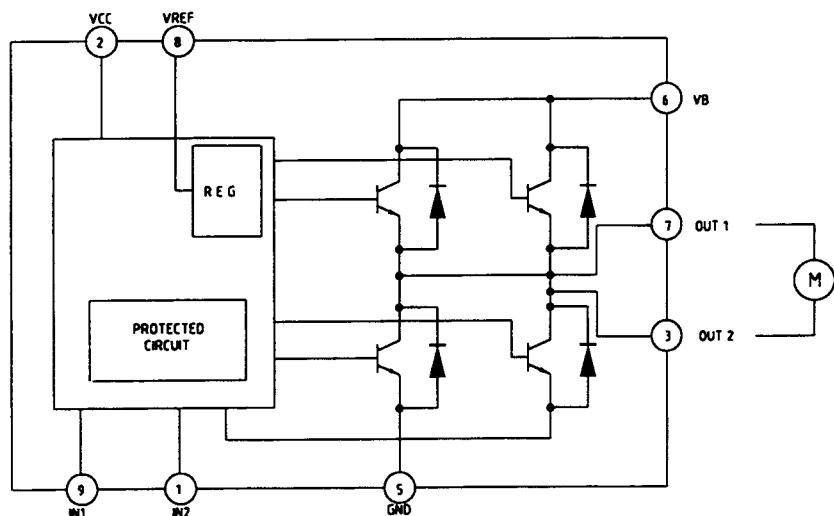
KA78 : IC108, IC109, IC110



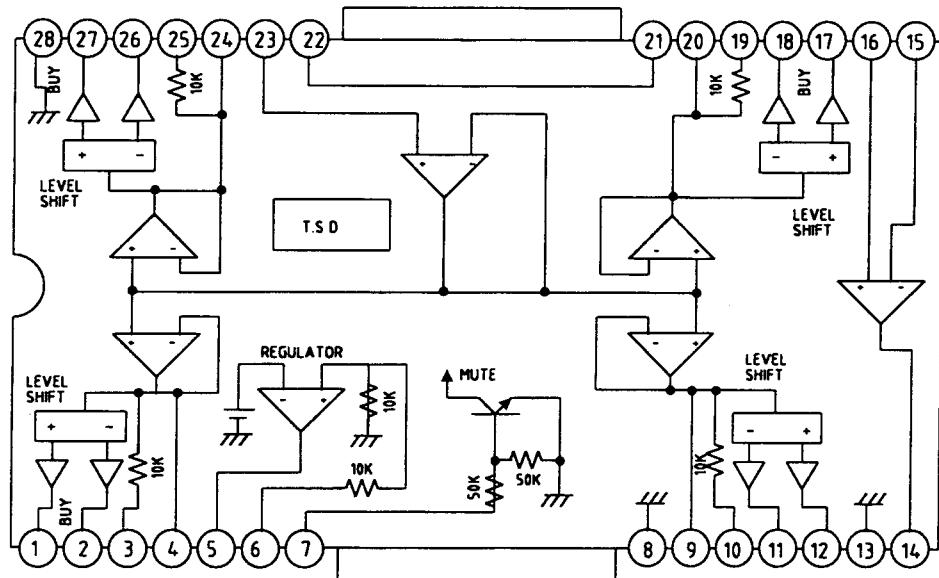
KIA 4559S : IC107



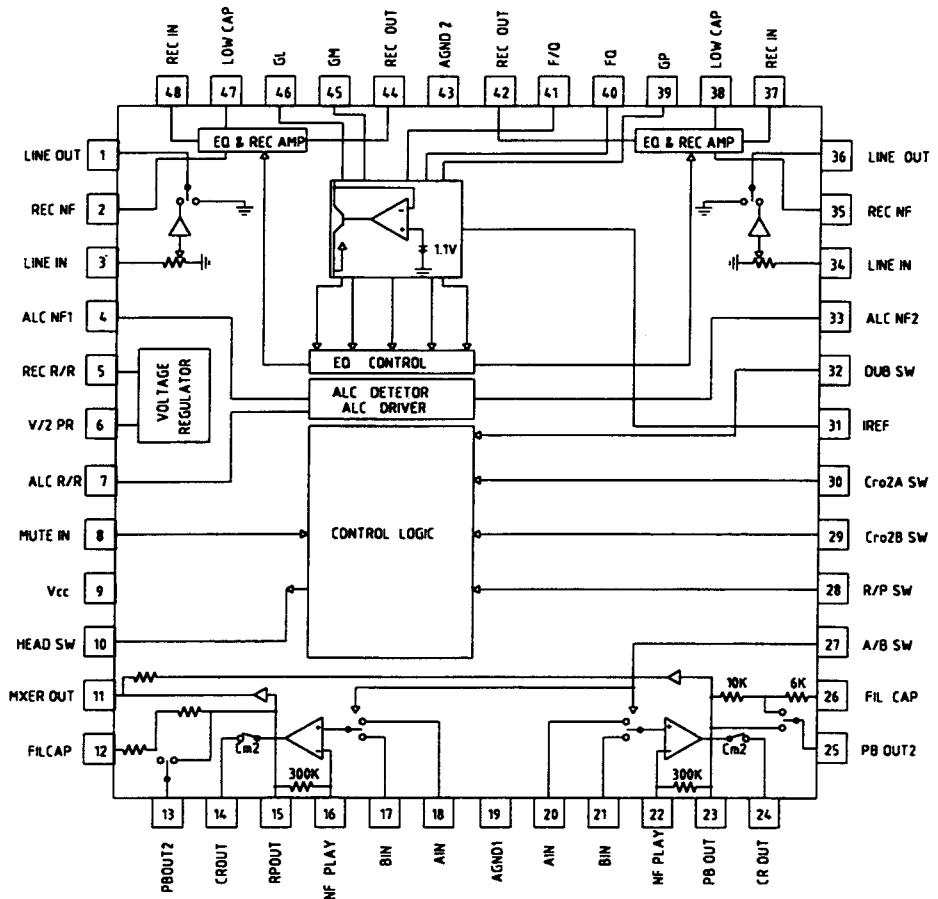
TA 7291S : IC105, IC106



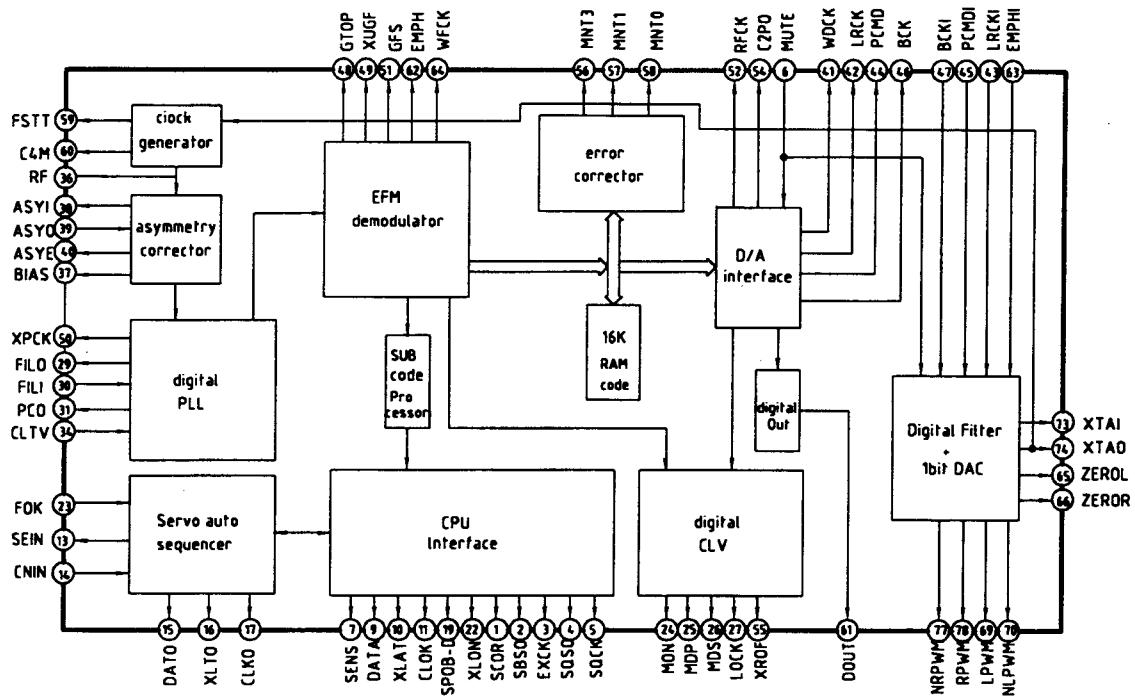
KA 9258D : IC104



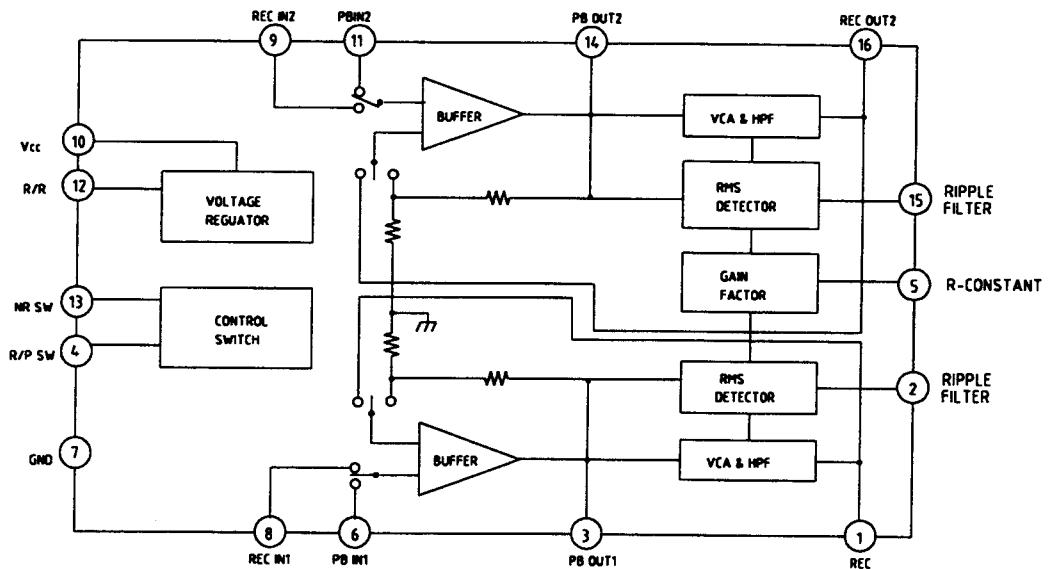
KA 22292Q : IC502



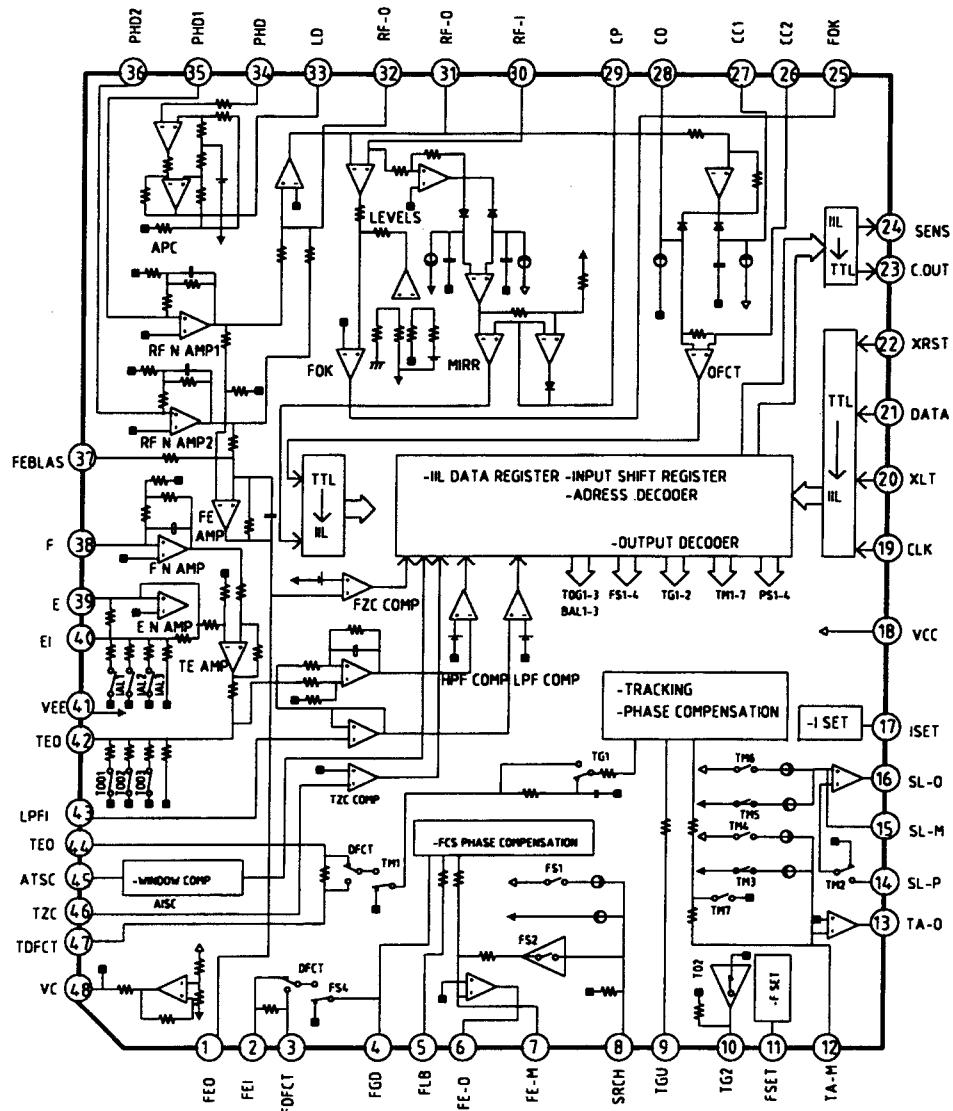
CXD 2508Q : IC102



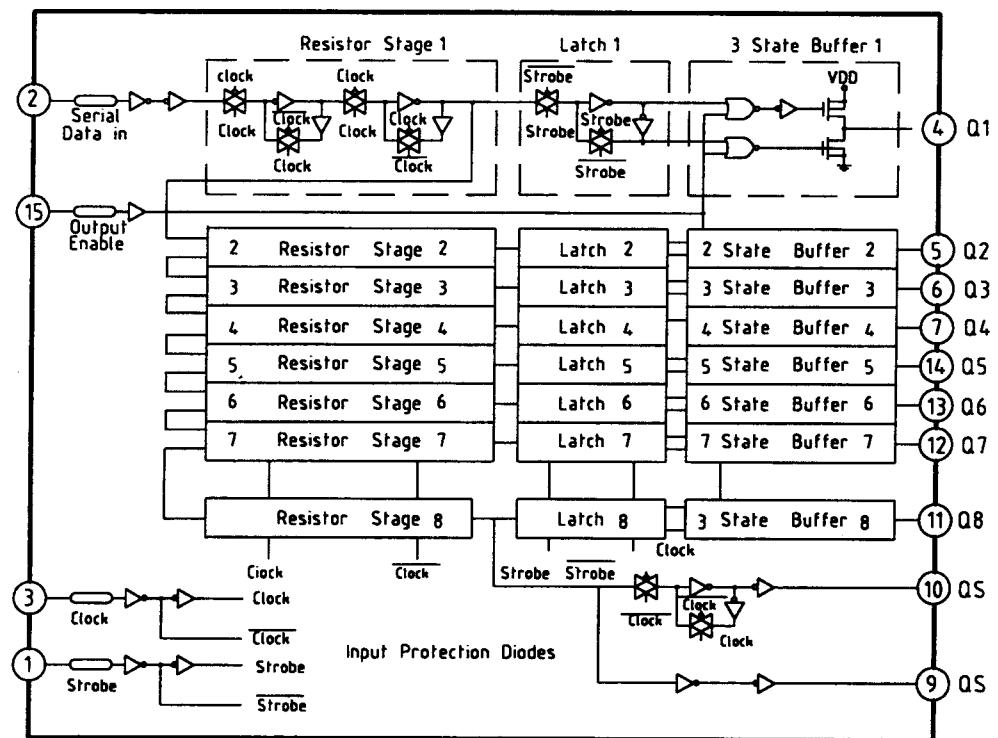
KA 22712 : IC501



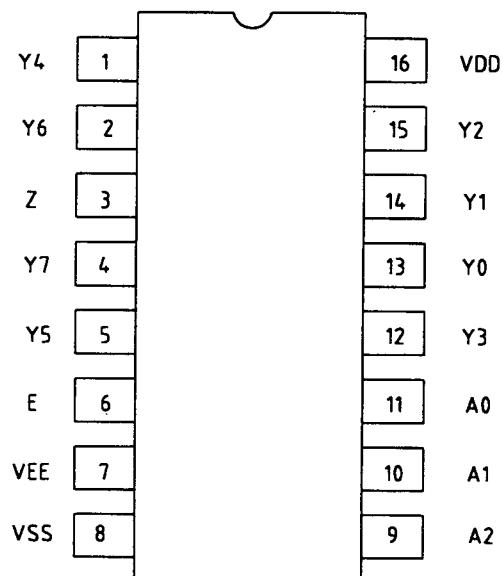
CXA 1782BQ : IC103



MC 14094BCP : IC201, IC202

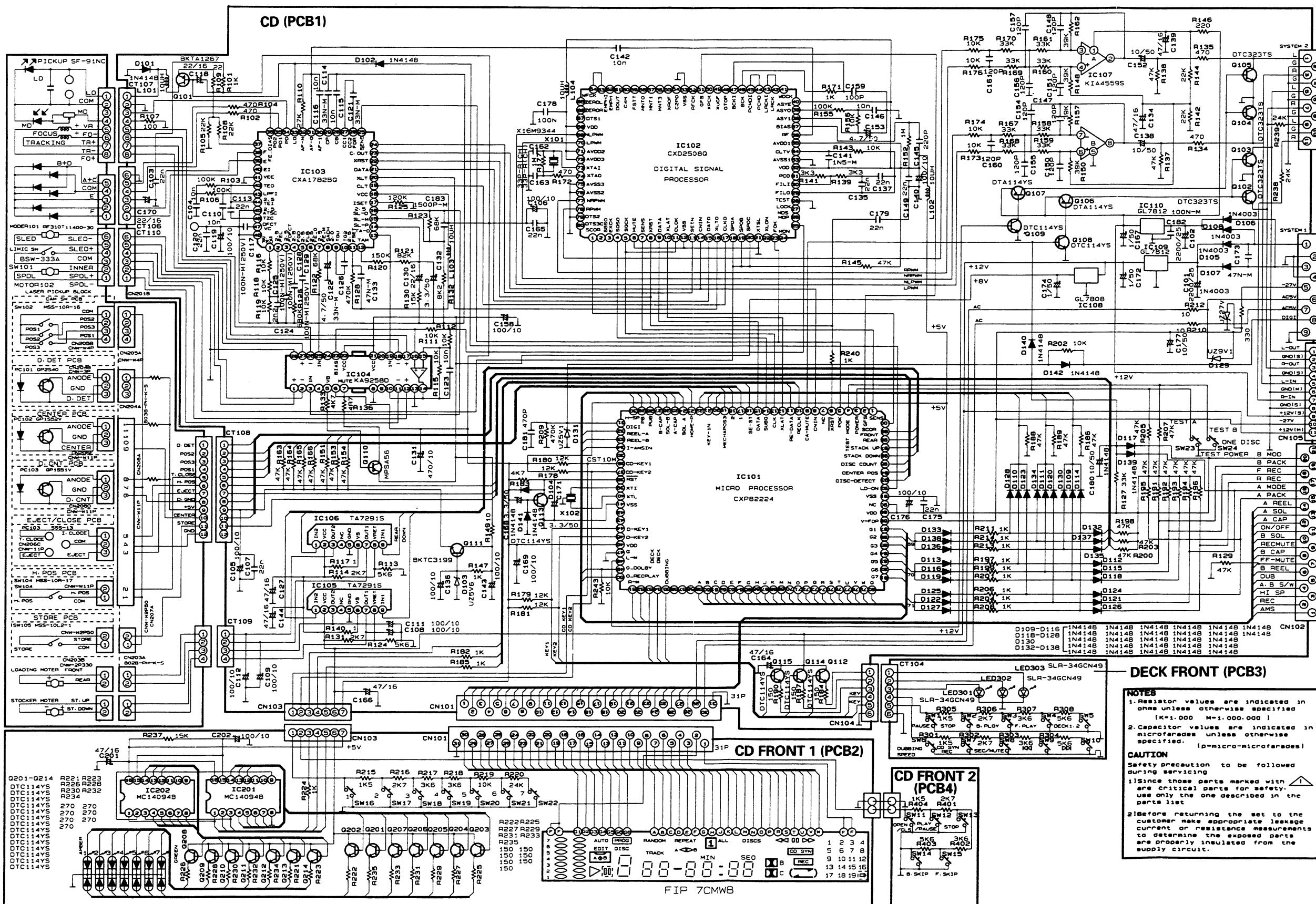


GD 4051B : IC503



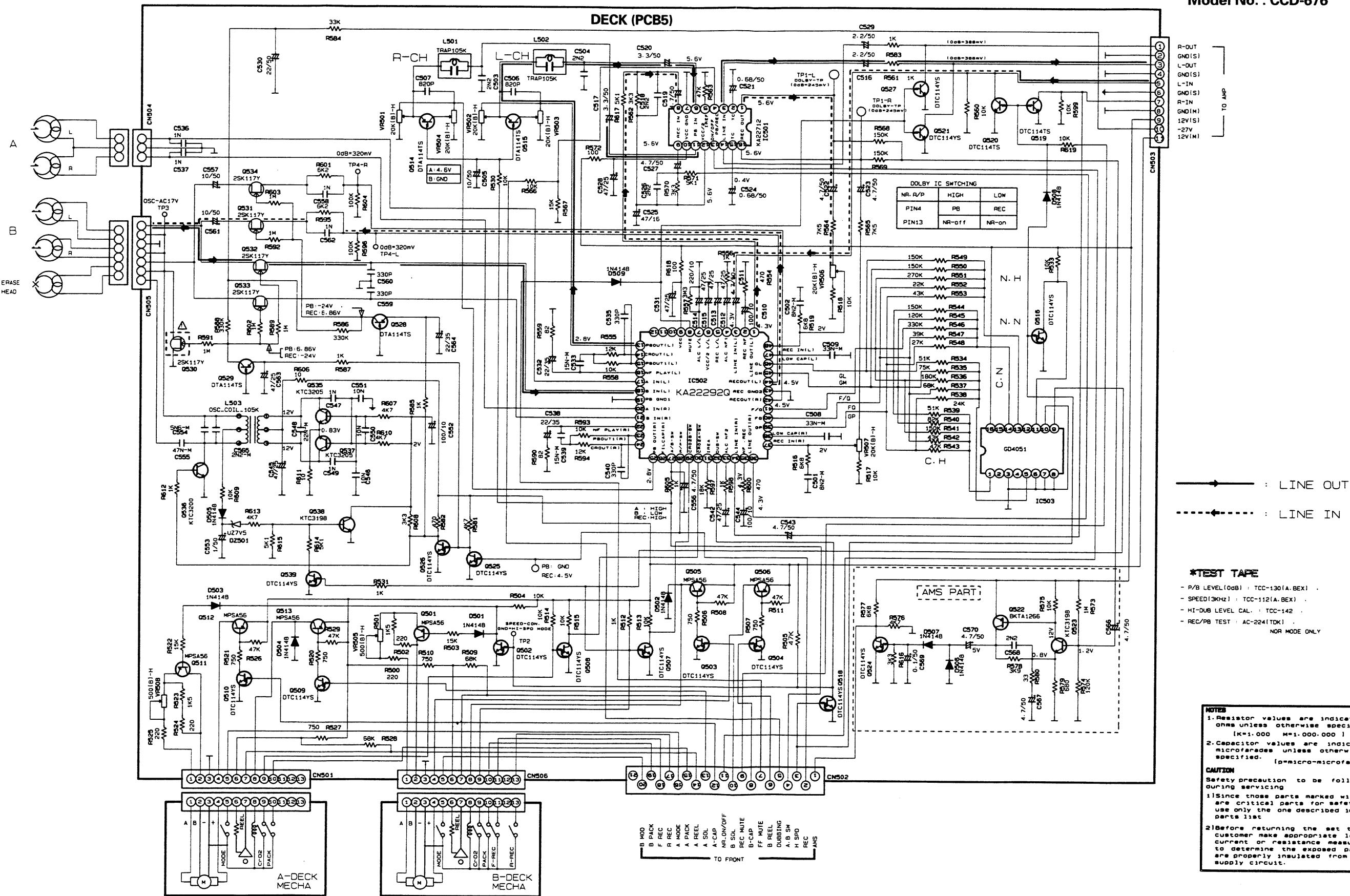
SCHEMATIC DIAGRAM (I)

Model No. : CCD-676



SCHEMATIC DIAGRAM (II)

Model No. : CCD-676



PIN CONNECTION DIAGRAM OF IC'S, TRANSISTORS AND DIODES.

